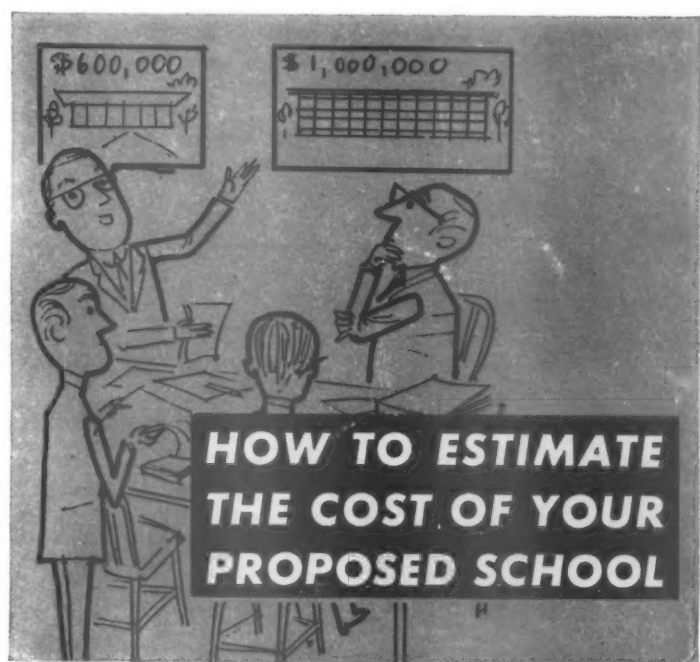
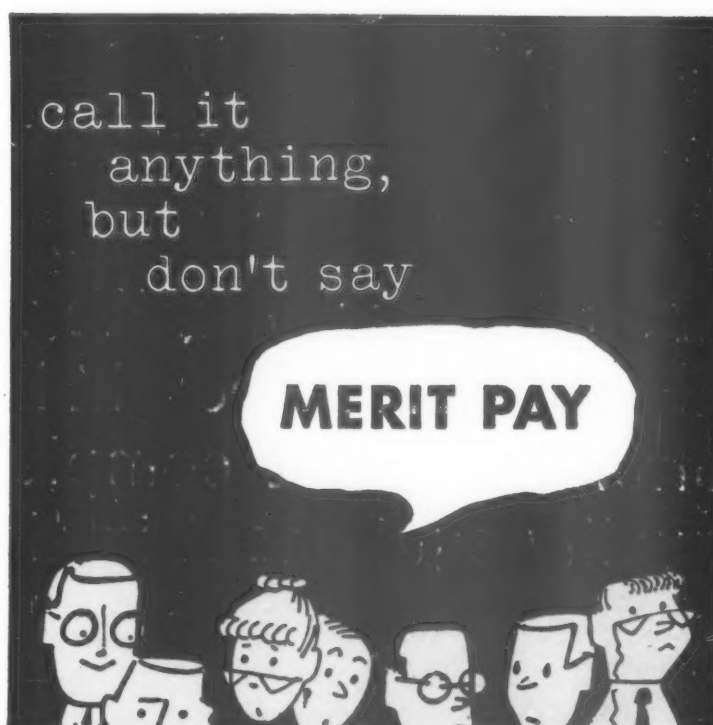
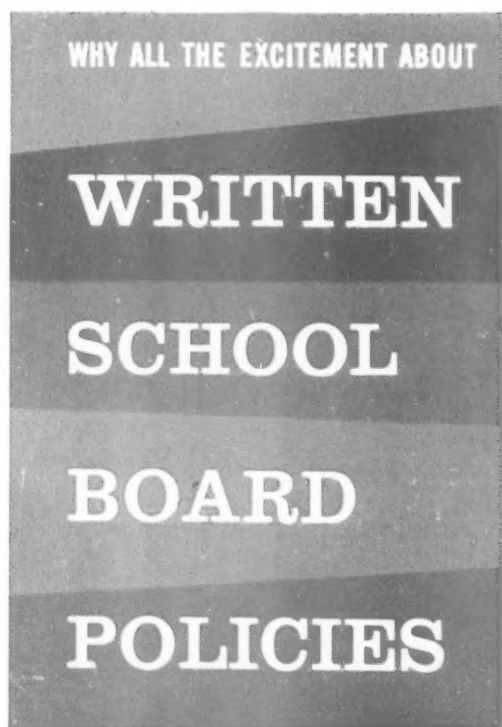


SCHOOL MANAGEMENT

Education Library

January 1960

PRACTICAL SOLUTIONS TO SCHOOL MANAGEMENT PROBLEMS



SEE COMPLETE CONTENTS ON PAGE 3

Why the excitement at Hamilton?

WE'VE ADDED ERICKSON TABLES TO OUR TEAM!

No other line of tables offers so much at such a low cost! We wanted it... we needed it... we bought it... so we could offer the most complete line of top quality equipment in the school field!



Erickson originated portable, fold away school tables back in 1948. The head start is evident today. Erickson tables offer you the widest choice in the industry—in-wall, on-wall or completely portable models, with or without benches, 6, 7, 8, 10, 12 and 14 footers, many types of tops.

Ericksons are the slimmest folding tables made. They nest so snugly you can store 24 feet of tables in a wall cabinet 3 feet high. Yet underneath the trimness, there's ruggedness to spare. Ericksons have *two* steel channels under each bench and top. Pivot points are anchored in metal—can't pull out. Easy folding with torsion and compression springing...no "surprise" openings with positive position locks...walk-in ends—Ericksons are the most usable tables made. The Erickson line added to Hamilton gives you the nearest thing to one-source shopping in the school materials field today!

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THE ERICKSON PRODUCTS DIVISION OF

Hamilton

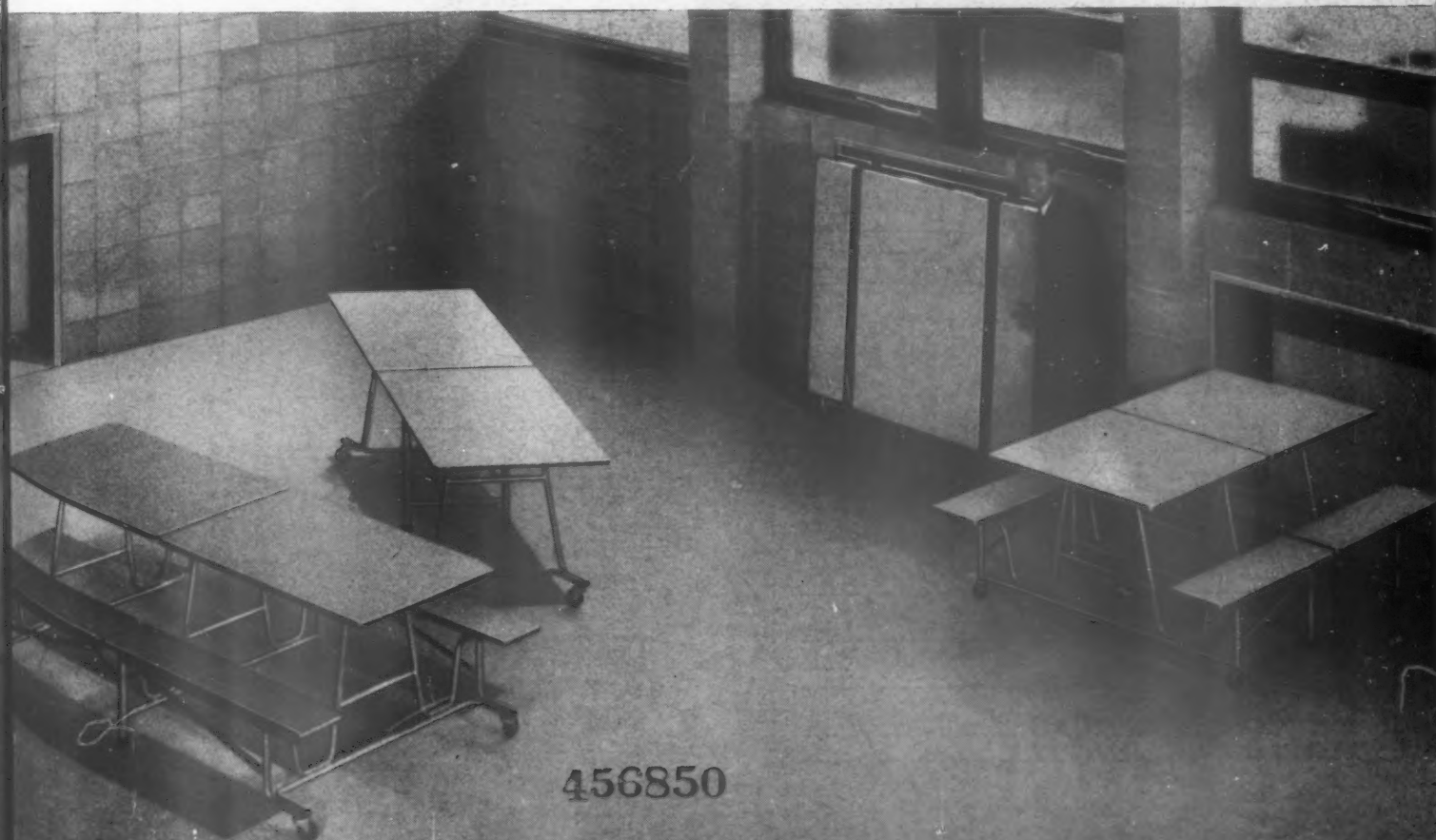
MFG. COMPANY, TWO RIVERS, WISCONSIN

Manufacturers of Educational Equipment for Science, Home Making, Libraries and Arts & Crafts.

(Circle number 720 for more information)

N. E. A. Atlantic City Convention news: See Hamilton products at booths G29 and 31, H30 and 32 upper level... see Erickson tables at booths 1429-1431, 1433-1435 lower level.

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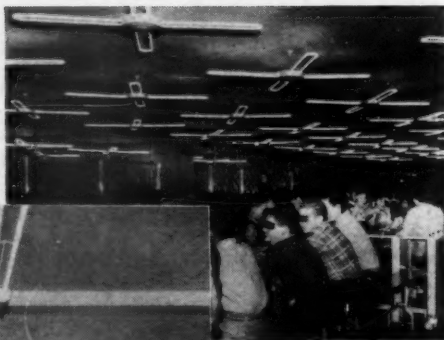


"HAIRPINLINE" COLD CATHODE FIXTURES

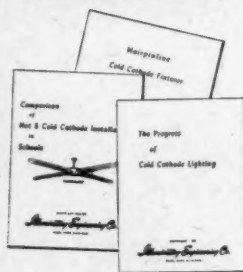


Hairpinline cold cathode fixtures (right) in the dining room of a modern school.

Hairpinline cold cathode linear fixtures, spot hung, light this classroom perfectly.



Send for these booklets today and learn the true facts about Hairpinline cold cathode fixtures.



Best for either original installations or replacements because - - -

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Originators of Hairpinline Fixtures

Please send me, free of charge, the fact-filled booklets on Hairpinline cold cathode fixtures.

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"HOW TO"

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Build with structural facing tile. Interior walls of structural facing tile not only provide fire resistance required by law, but are totally free of toxic fumes and combustible gases if fire occurs.

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(Circle number 716 for more information)

SCHOOL MANAGEMENT

22 West Putnam Ave., Greenwich, Conn.

Volume 4

Number 1

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Member of Business
Publications Audit

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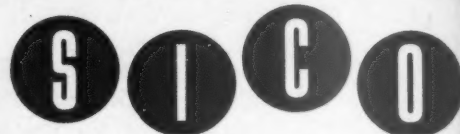
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STAGING UNITS SO VERSATILE, THEY SOLVE ANY STAGING PROBLEM

SICO Stages, Chair Risers, Choral Risers are ideal for multi-purpose rooms, classrooms, music rooms—wherever flexible staging is needed. Three basic units are interchangeable and interlocking. You can use them alone or in combination for any staging arrangement. To the smallest detail, they're designed to give practical, efficient service.

Portable and folding, one person can set up an entire arrangement in minutes. SICO units handle effortlessly. When not in use, they fold and store in a minimum area. Built for durability, they carry a ten-year written guarantee, will last a lifetime.

Portable—fold them up, roll them away. They roll easily on four 4" casters—two rigid and two swivel for positive guiding. Casters lower automatically with folding—retract with opening.

Vinyl tile deck—quiet, durable, beautiful. Durable vinyl tile flooring retains beauty longer than any other decking. Tiles can be quickly and easily changed. Quiet for walking, easy to clean.

Unitized frame—structural steel. Steel frame is welded for one-piece rigidity. Electric-arc welding is used, a must in equip-

ment that's built to last. Fronts and backs are entirely free of crossbars so that floors can be mopped and cleaned without moving units.

Zinc lustron plating. Beautiful, durable. Will not rust, chip, or peel. Has the qualities of fine zinc plating, yet eliminates to a high degree its oxidation.

Rubber terminals prevent slipping. Eight 2" rubber terminals anchor units in position. Casters retract automatically when units are opened into position.

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Complete with accessories

- Front and Side Panels—permit complete enclosure of visible sides of platforms.
- Tapered units to make complete 180 degree installations.
- Triangular Inserts—interlock between regular units, permit semi-circular arrangements.
- Platform Steps or Ramps.
- Guard Rails.

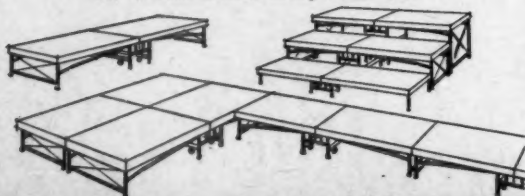
For detailed information on SICO Staging, write

SICO MANUFACTURING COMPANY, INC., Dept. 501
5215 Eden Avenue South, Minneapolis 24, Minnesota

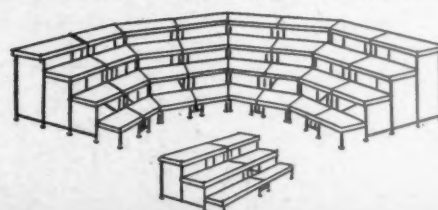


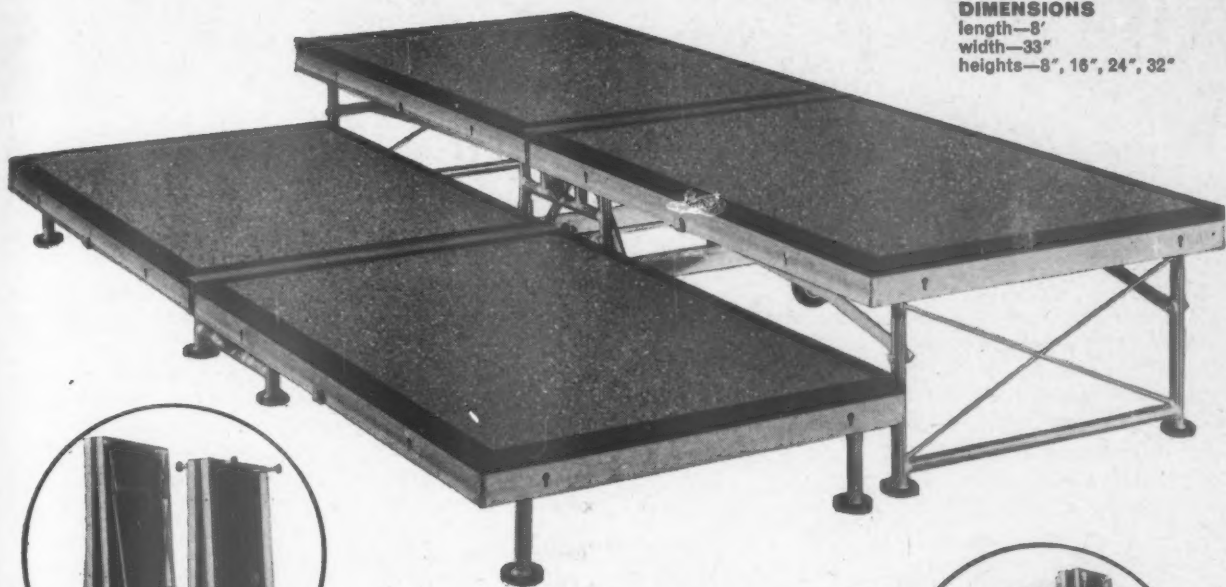
DIMENSIONS
length—8'
width—4'
heights—8", 16", 24", 32"

Interchangeable, Interlocking—SICO Stages and Chair Risers can be used alone or in any combination

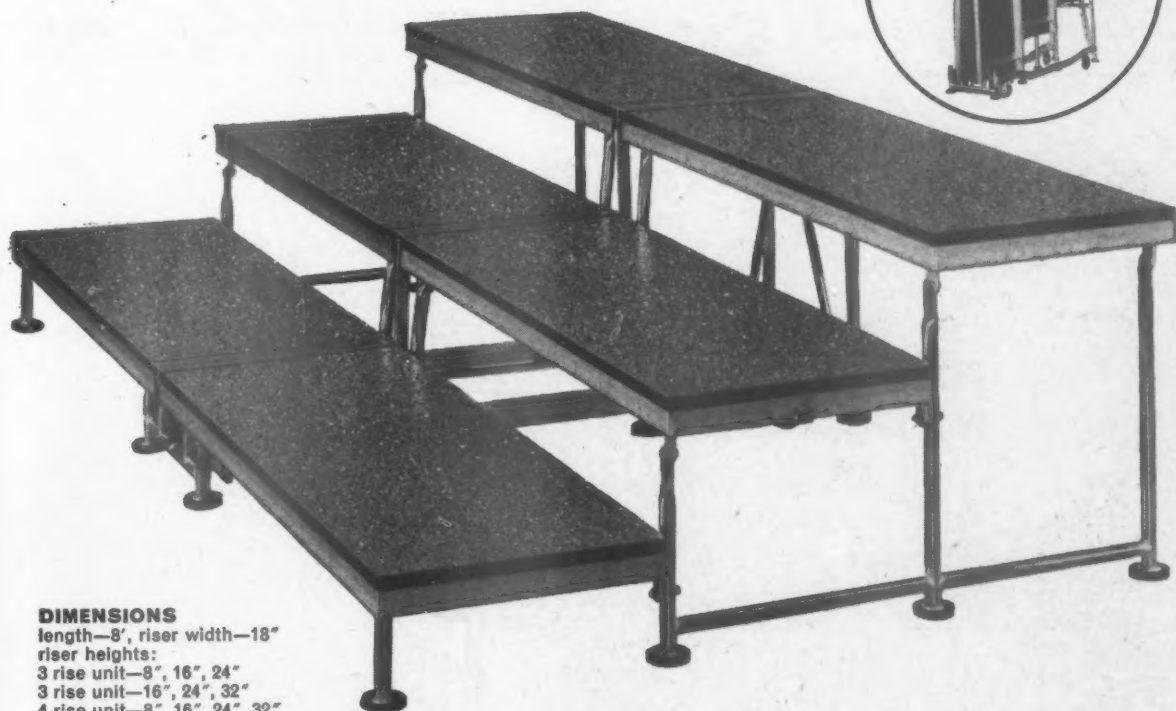
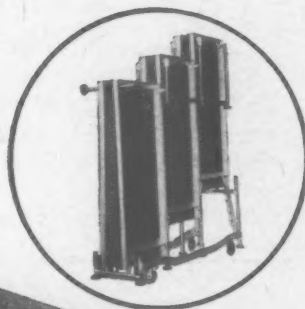
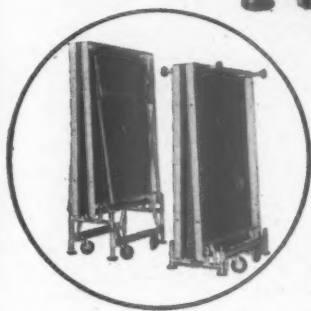


SICO Choral Risers can be set up straight or in semi-circular arrangement





DIMENSIONS
length—8'
width—33"
heights—8", 16", 24", 32"



DIMENSIONS
length—8', riser width—18"
riser heights:
3 rise unit—8", 16", 24"
3 rise unit—16", 24", 32"
4 rise unit—8", 16", 24", 32"

There's a SICO table for every school seating need



YOURS FOR THE ASKING

These booklets—promotional and otherwise—contain ideas of possible value to you and your schools. Each item listed will be sent to you without cost.

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▼ **Fire and human beings.** The human elements of fire safety are concisely presented in "Ring the Alarm," a thought-provoking booklet just published by Educational Facilities Laboratories, Inc. Not a handbook on how to create fire-safe buildings, it cites a recent survey which estimates that 30% of the fires studied were directly due to human carelessness or malice. The booklet is a guide for school administrators in the management of people during fire emergencies and offers suggestions for the development of practical plans of action. It discusses the causes of human failure, the proper conduct of fire drills and the dangers that must be guarded against once a building has been evacuated. Also included is a check list for school officials of protective procedures to be followed in schools. This booklet deserves to be read with care by every school administrator.

For a free copy of this booklet, circle number 869 on the Reader Service Card.

▼ **Tables.** Table tennis and utility tables—for games, sewing, trains, etc.—are illustrated and described in detail in a new color catalog issued by Brinkton, Inc. Included are a variety of folding roll tables for use in schools where space is at a premium.

For a free copy of this booklet, circle number 878 on the Reader Service Card.

▼ **Fenestration fabric data.** Information on decorative window treatments for control of heat and sun glare with the use of fenestration fabrics is offered by Owens-Corning Fiberglas Corp. in a four-color brochure now available from the company. Data about noise reduction coefficients, light transmittance and comparative heat-shade factors is given for the company's fabric, together with recommended specifications for its use as a window treatment material. Design recommendations are given as well, since the

manner in which the fabrics are hung considerably influences their functional performance. Many examples, in full color, of the material in use in offices and building lobbies are presented.

For a free copy of this brochure, circle number 832 on the Reader Service Card.

▼ **Audio-visual resource.** Selected motion pictures, both free and rental, are listed with brief descriptions, running time and price (where applicable) in Association Films' 1959-60 catalog. More than 500 films are included in the listing, indexed by subject matter and presented alphabetically by title. Among the many new films announced: "The Ages of Time," a pictorial history of man's progress in telling time from the dawn of history; "Plan for Learning," dramatizing the problems faced by communities throughout the country trying to meet classroom shortages without diluting educational quality; and "The Twentieth Century" series that now contains over 50 half-hour and hour-long documentaries produced by CBS-News and available for free-loan.

For a free copy of this catalog, circle number 839 on the Reader Service Card.

▼ **For flexible science labs.** A complete line of portable science tables is described in a bulletin offered by Laboratory Furniture Co., Inc. A fully-equipped science center, a demonstration fume hood, two types of mobile units, apparatus tables and carts are illustrated in the colorful, four-page booklet.

For a free copy of this bulletin, circle number 833 on the Reader Service Card.

▼ **Aid to specifying builders.** Ease of product identification and full specifications make Johnson Rubber Co.'s four-page catalog of rubber flooring accessories a useful reference for specifying architects, engineers and

contractors. Included in the two-color catalog are full descriptions of the company's rubber cove base, stair treads, stair nosing, rug & tile guard and other items. Complete size, color and packing data are given, plus fully detailed application information and product illustrations. The catalog is marked with the appropriate AIA file number for insertion into architect files.

For a free copy of this catalog, circle number 836 on the Reader Service Card.

▼ **Selecting folding chairs.** Information about the variety of folding chairs offered by Mayfair Industries is presented in the company's newest 16-page catalog that describes and illustrates the many models and accessories available. Constructed of strong, lightweight anodized aluminum, the chairs come in silver satin, gold, brown and black frames and an infinite selection of upholstery materials in decorator colors. They are easy to fold, move and stack in small spaces, stand unsupported when folded.

For a free copy of this catalog, circle number 841 on the Reader Service Card.

▼ **General science slides.** A description of a new general science series of slides for the overhead projector is contained in a four-page, three-color bulletin available from Creative Visuals Co. Subjects covered in the 50-slide series, with 102 progressive overlays, are astronomy, anatomy, meteorology, the atom, electricity, botany.

For a free copy of this bulletin, circle number 834 on the Reader Service Card.

▼ **How to floodlight open areas.** Planning the lighting for parking, playground and other open areas can be eased with the help of a new bulletin available from Crouse-Hinds Co. In its 16 pages are quick reference guides for the selection of incandes-

continued on page 80



Many school authorities encourage soft drinks

to encourage good habits

In many secondary schools, officials make soft drinks easily available in food and refreshment facilities, in order to cultivate mild, moderate, wholesome recreational habits.

They reason that if youngsters have an after-school gathering place at school, with a soft and pleasurable refreshment keynote, they will be more inclined to participate in beneficial activities under the watchful eye of the school administration.

By the same token, availability of soft drinks within school limits encourages youngsters to stay on school property at lunchtime.

Other soft drink values to be taken into account in relation to school facilities:

1. DIETARY VALUE: Soft drinks are accepted in dietetic planning as an "accessory food." Like relishes, they accent the diet healthfully. Thus they add flavor and variety to menus that otherwise may seem routine.

Soft drinks provide 100 calories of food energy per 8 ounces in easily assimilable form—a helpful contribution during the school day to pupil alertness and interest.

2. WHOLESOMENESS: As you know, the body loses 2½ quarts of fluid each day. Soft drinks help restore body fluid balance. Carbonation adds zest and palatability. In addition, soft drinks aid digestion and stimulate appetite. Because they are liquid, soft drinks pass quickly through the mouth, with virtually no involvement in oral conditions related to dental problems. Recent dental research reaffirms this thinking.

These are some of the reasons why soft drinks have a place in the food and refreshment facilities of our schools where bottled beverages are easy to store, handle and serve economically. If the subject of soft drinks in schools comes before your Board, talk it over with your local bottler. He's a tax-paying businessman of the community, dealing in products which contribute to the local economy in the same way as other food products served on school premises. He's entitled to a fair hearing.

Let us send you more complete and thoroughly documented literature on the food, health and social values of bottled soft drinks. Write:

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Washington 6, D.C.

The National Association
of the Bottled Soft Drink Industry

A non-profit association of manufacturers of bottled soft drinks, with members in every state. Its purposes: To improve production and distribution methods through education and research... and to promote better understanding of the industry and its products.



(Circle number 703 for more information)



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CONTRACTOR: R. A. CIVITELLO COMPANY • ARCHITECT: LESTER J. A. JULIANELLE

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19. Write for complete Aetnapak[®] catalog:

(Circle number 700 for more information)



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says H. Austin Sheldon, District Clerk and Business Manager, Union Free School (District No. 2), West Babylon, N. Y.

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"Installing one Burroughs Typing Sensimatic Accounting Machine solved our problems in short order. We now have an up-to-date, accurate accounting of all funds at all times. And, just as important, we have ample capacity for growth.

"This single machine automates all our accounting—including a unique method of general check writing. It gives us full description of entries. It even does some jobs simultaneously. As a result, job time has been cut as much as 70% in certain areas. And our ledgers are prepared so concisely that one file drawer houses all the financial records for the whole district."

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Burroughs and Sensimatic—TM's



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"NEW DIMENSIONS / in electronics and data processing systems"

(Circle number 709 for more information)

A guide to useful information

SCHOOL PLANNING

Information and guidance. In its first annual report, the Educational Facilities Laboratories describes its purpose by outlining the areas in which it was designed to help school planners. These areas are: over-all institutional planning; design and construction of the elements; the tools; and increasing the public knowledge. The remainder of the report is taken up with descriptions of the projects in which EFL has participated in the past year. A financial statement, listing income, grants and expenses is included in the report.

HERE THEY LEARN. *First annual report, Educational Facilities Laboratories, Inc., 477 Madison Ave., New York 22, N. Y. 32 pages. Free.*

FRAUD

Diploma mills. Institutions which grant "quickie" bogus degrees—usually by mail—are raking in an estimated \$75 million annually and doing inestimable damage to U.S. prestige abroad. The activities of these quack colleges, with enrollments—both here and abroad—estimated at 750,000 annually, are planting seeds of doubt about all American education in the minds of many foreign nationals. This study of the situation reports the facts about American degree mills, how they operate, how they are (un)staffed, and why they are unqualified to work within the accepted framework of the American educational system. Suggested solutions are offered, most of them entailing unprecedented cooperative effort by the states and the federal government to adopt uniform legislative standards for the operation of all institutions of higher education.

AMERICAN DEGREE MILLS, by Robert H. Reid. Published by the American Council on Education, 1785 Massachusetts Ave., N. W., Washington, D. C. 100 pages. \$1.

VOCATIONAL EDUCATION

Rural districts. Agricultural and home economics courses are too often equated with vocational training in most rural areas of America today. This is a

waste and a mistake, think the authors of this book on the subject, and they offer a number of steps by which rural communities can improve the programs they now have. Here are some of the changes—in attitude and approach—recommended: A realization that there will be almost no market for the unskilled in the next generation; acceptance of the fact that the rural group forms a continuously dwindling part of the population; that vocational education should not be limited solely to high school students; that the education of vocational teachers must be improved and expanded; and that public school buildings should be designed for the use of adults as well as children. The book discusses further the growing interest in the development of area or regional vocational schools as a means of extending vocational educational opportunities to all members of the population.

VOCATIONAL EDUCATION FOR RURAL AMERICA. Published by the National Education Association, 1201 16 St., N. W., Washington 6, D. C. \$4.

INSURANCE

Managing the local program. School district insurance coverage is much broader today than ever—a reflection of the increased investment by local districts in elementary and secondary school properties. Protecting this investment—estimated at \$25 to \$28 billion—against damage and loss is the responsibility of the school board. This bulletin is designed as a guide for board members in the establishment of definite policies regarding the purchase of insurance protection. It discusses the need for periodic reviews of the school insurance program; the necessity of keeping adequate records of property values, insurance in force, premium payments and maturity dates; and presents concise descriptions of the basic types of insurance coverage available to schools.

SCHOOL INSURANCE: MANAGING THE LOCAL PROGRAM, by R. N. Finchum and N. E. Viles. U. S. Department of Health, Education and Welfare. Available from Superintendent of Documents, Washington 25, D. C. 97 pages. 50¢.



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... and they are low in cost!

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Summit, N. J. Dept. SMG

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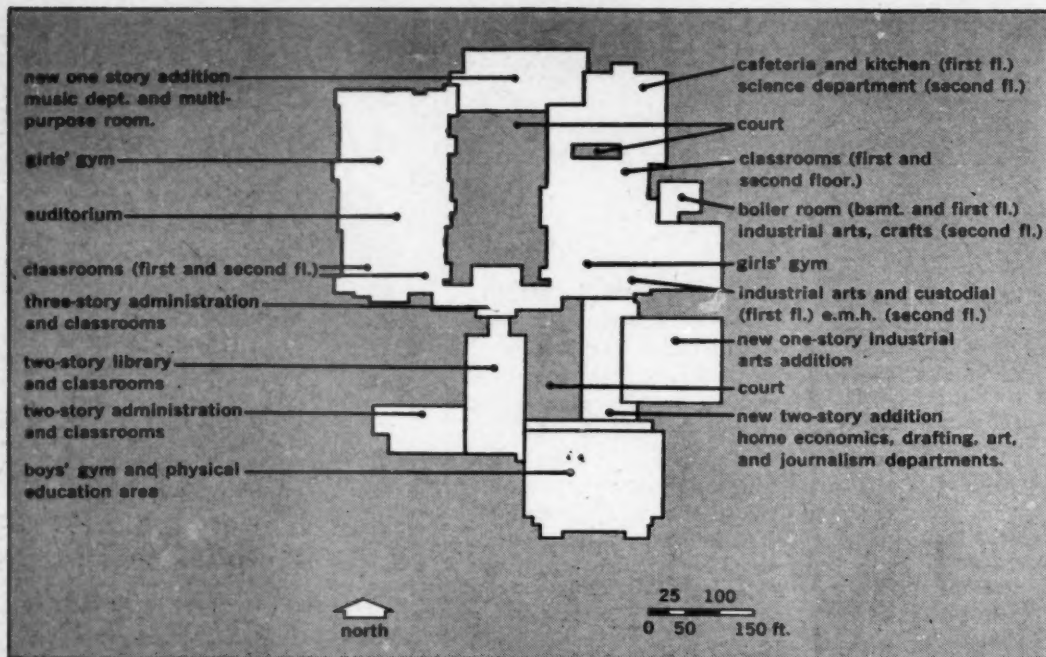
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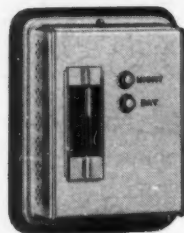
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Schematic Building Plan — York Community High School, Elmhurst, Illinois.



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With audience facilities for nearly 3,500 persons, the large five-court gymnasium poses special comfort problems. Johnson Thermostats assure comfortable temperatures and proper ventilation regardless of the number of persons present. The gymnasium can be heated and ventilated without affecting after-hours temperature reductions in other parts of the school.

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New East Wing, York Community High School, Elmhurst, Illinois. Childs & Smith, architects and engineers, Chicago.

es this outstanding school comfort and economy

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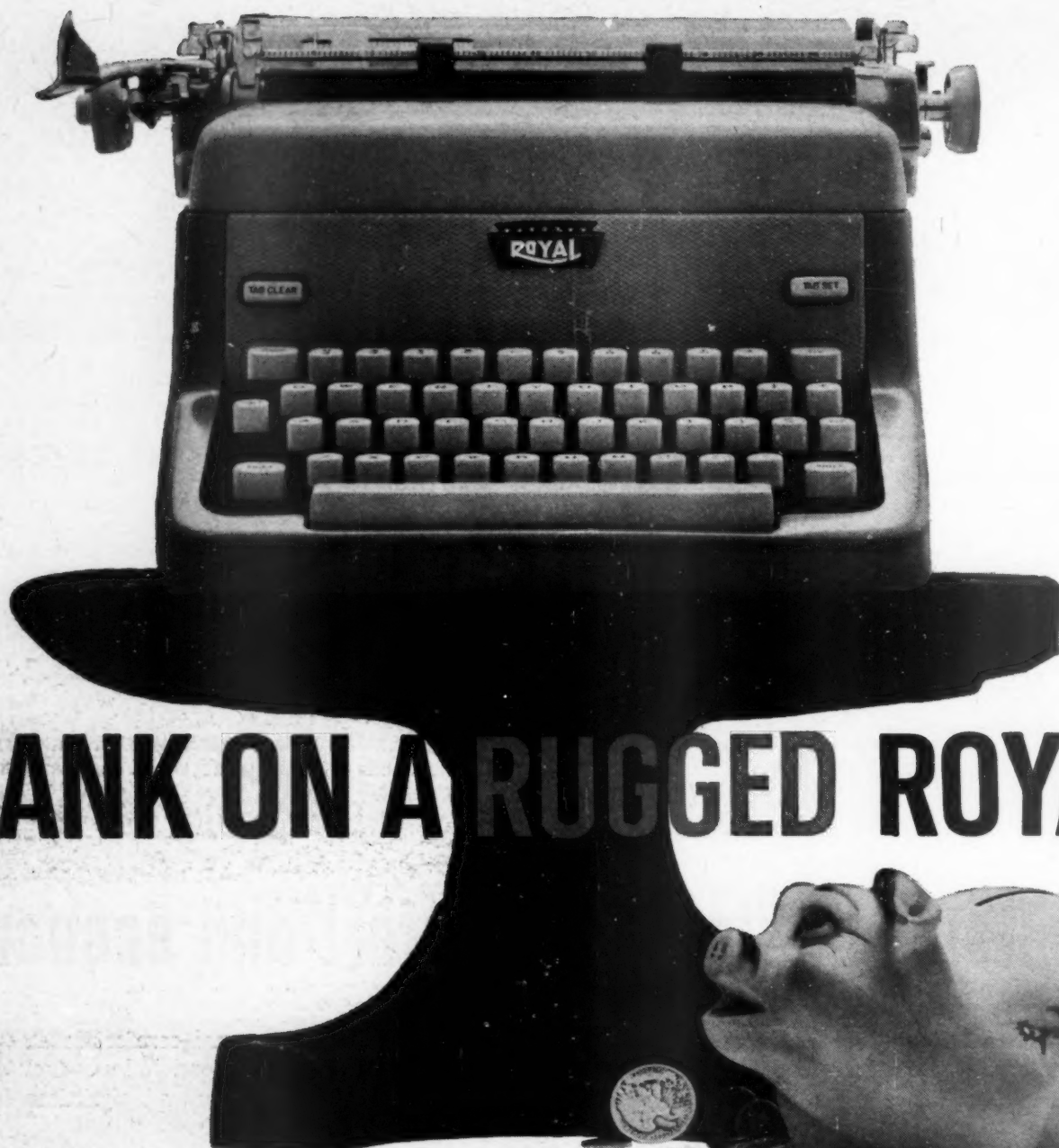
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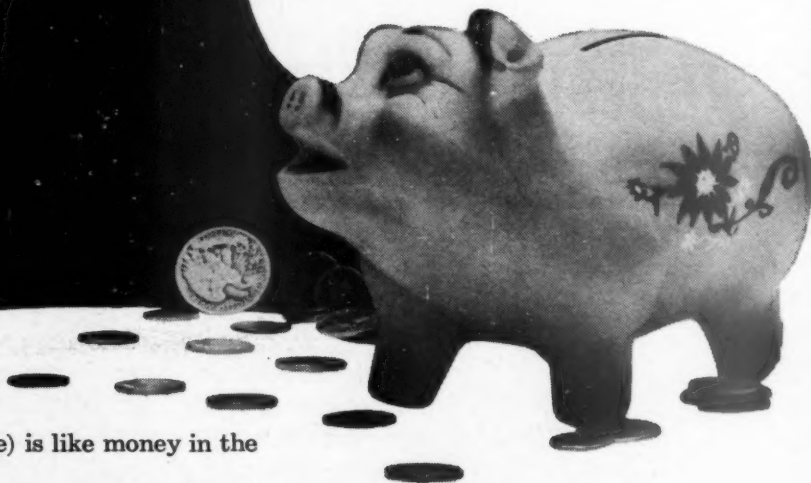
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Richard Flambert answers your feeding questions

QUESTION: What do you think of the "bypass line" system used in some cafeterias? Will they work in schools?

■ The "bypass line" is best known to the commercial cafeteria, but it can very well apply to high schools and colleges (*see sketch below*).

The customer, or student, comes to the service line, the beginning of which is rounded and, in some cases, revolving, from one side. This part of the line is generally used for salads and other cold foods. At the end of the round area a long, straight service line extends to the second round area. This straight line is used for the entrees and other hot foods, which are usually served direct from the kitchen. At the end of the straight line the counter again becomes a rounded one. In this area are found desserts, ice cream, milk, coffee, etc. The cashier is stationed at the end of the line.

There are several good points about the "bypass line":

1. It is extremely attractive.

2. The eye first comes in contact with colorful salads.

3. A person desiring a salad, dessert and beverage can go through from one rounded area to the other without the necessity of going through the hot food section.

4. People waiting for their entree are not harried by holding up the line of movement.

5. It is a variation of the successful scramble system.

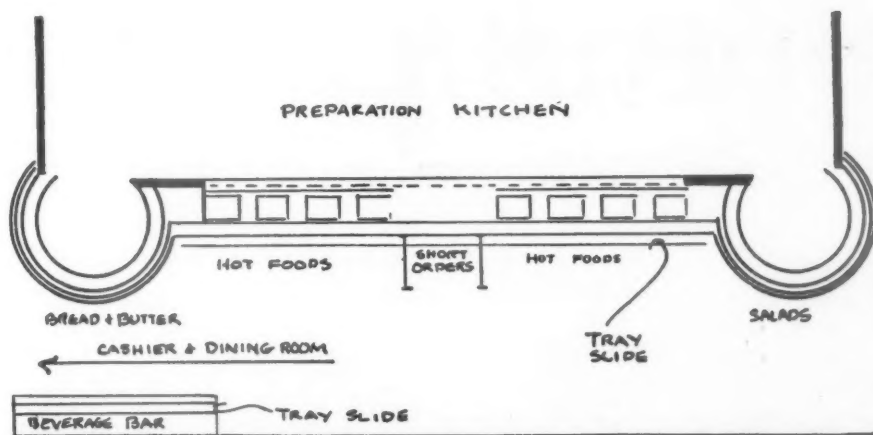
6. These "bypass lines" can be set up in several areas.

However, there are some weaknesses to this plan.

1. Expert checkers and/or cashiers are required to speed up the service.

2. Unless revolving salad and dessert tables are utilized, the replenishment of these counters is cumbersome.

3. They are costly.



About the author. Richard Flambert is a partner in the firm of Flambert and Flambert, San Francisco and St. Louis, food service consultants and engineers specializing in schools and institutions. He is president of the International Society of Food Service Consultants.

JANUARY 1960



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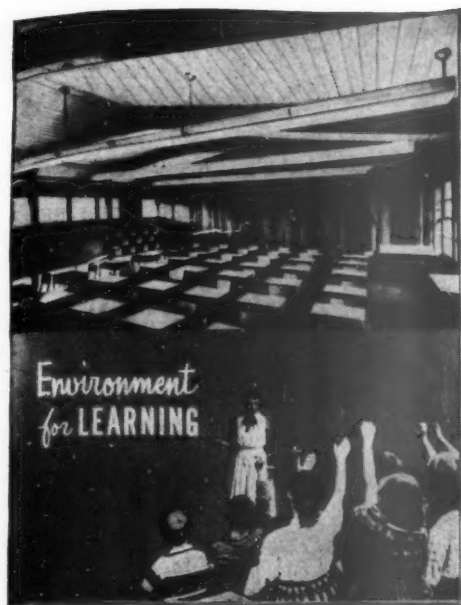
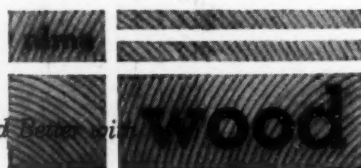
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THINGS YOUR PUBLIC OUGHT TO KNOW

Basic information that schoolmen can use as a part of a community education program

How good are your schools?

The National Merit Scholarships may prove to be your best yardstick—if you know how to interpret your schools' results under the new system of "letters of commendation."

Editor's note. The following article, written by Fred M. Hechinger, education editor of the *New York Times*, is reprinted below with the newspaper's permission.

■ ■ ■ The guidance counselor of a good private school in New York complained bitterly recently about the National Merit Scholarships. Three years ago, he said, his school had 32 finalists. Last year the number declined to 17. This year there were only nine. Yet the school's number of candidates had actually grown each year, he added, and each subsequent class had been academically superior to the previous one. The last claim, he said, was plainly documented by the results of the New York State Regents Examination.

"I don't know what has happened," he said. "But I have lost faith in the Merit Scholarship competition."

The commissioner of education of an eastern state said that public misunderstanding of the merit tests is beginning to damage the entire concept of the competition.

The principal of a large New York City high school last week added this testimony: "We had five semi-finalists three years ago; three last year; and only one this year. I

don't even like to encourage our students to take part in the test any more. With the results as they are and with top students not making the grade, we have to begin doubting either our own work or the integrity of the test."

Doubts are typical

These "doubts" have become so typical that, in educational circles, they have by now assumed the proportion of a whispering campaign. Guidance officers and principals in private conversation ask openly whether the Merit Scholarship selection is "rigged."

This is a serious matter because the four-year-old, nation-wide competition had become symbolic of the country's talent search and of the attempt to give status and recognition to intellectual competition. While the total number of actual scholarship winners—about 900 this year, with the number depending annually on corporate contribution to the fund—is insignificant, the prestige given to the entire contest was a refreshing departure from the traditional scramble to make the football teams.

Even more was involved. Of the 10,000 semi-finalists, about 95% got into college, and more than half of them were able to get scholarships outside the Merit program.

This year, 550,000 students from 14,500 schools took part.

If any cloud of possible "rigging" were to come over this program the American pursuit of excellence and talent would be severely damaged. The question, therefore, was put to John M. Stalnaker, president of the National Merit Scholarship Corporation. The answer was that while the competition is completely honest, its operation appears to be widely misunderstood, even among high school educators who should be able to explain the contest to their students.

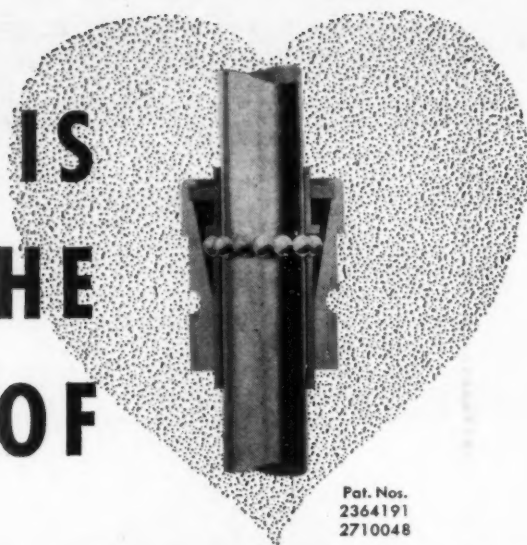
Regional selection

The fact is that the program is not—as its name may imply, and as parents, students and some educators appear to assume—administered on a nation-wide, across-the-board basis. True, the examination is the same for all students. So is the grading of the test results. But the semi-finalists are picked on a regional basis, according to a quota system which gives a certain number of semi-finalists to each state.

The quotas are determined by the state's total number of high school seniors in relation to the total number of high school seniors in the country.

In practice, this means that the winners in an academically high-

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ranking state will represent far higher ability, or at least achievement, than the winners of an educationally underdeveloped state. Thus it is possible that winners in one state may have scored lower than some who did not make the grade in another state.

As for the steady reduction of the total number of semi-finalists in so many New York schools (and probably in the schools of many other states), the answer is that as more schools participate, the ratio of winners per school declines—especially since the state's quota is not likely to change very much.

This, then, is not a "rigged" test but a misunderstood one. It might also be said to be a mis-labeled one: rather than being a measure of national merit, it is a nation-wide contest to reward regional merit.

Why does the test operate in this regional manner? The answer is simply that American education leaders are so conscious of the regional differences in the quality of public education that they are afraid of any test which would not only invite open comparison but would probably eliminate students from certain areas almost completely from the race. There is little doubt that many of the test's original planners had envisioned a truly national contest. Evidently the pressure against a program that would invite odious comparisons was too strong.

National standard

The Westinghouse Science Talent Search provides a good indication of what happens if a test is given on an across-the-nation basis of merit: This year New York State captured 40.7% of all Westinghouse prizes and honorable mentions. Or, to use another example, more than half of the nation's candidates for advanced placement in college, under a program which offers college-level work in high school, came from four states—New York, Massachusetts, Illinois and Connecticut. Of the high schools taking part in this program, 22.9% were in New York State.

There is, of course, a legitimate objection to selection according to uniform nation-wide standards. As one spokesman for the scholarship corporation put it, "talent cannot be measured by the same yardstick un-

less the quality of instruction is equal, too."

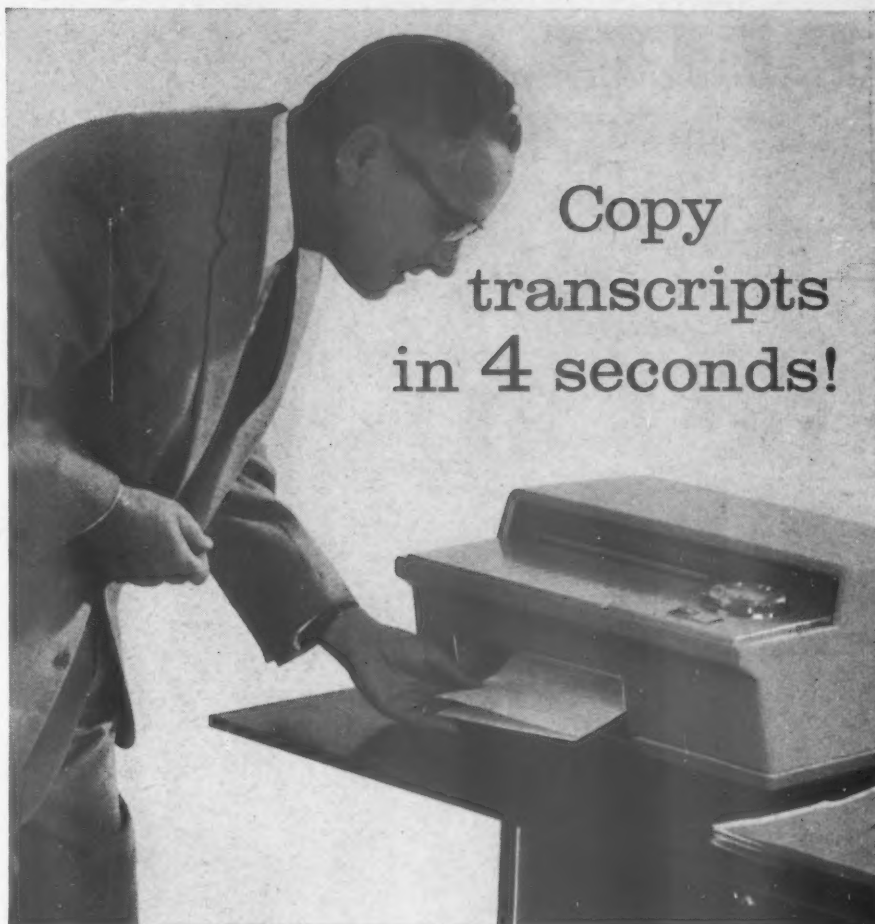
At this point, the entire question runs into a serious ideological difference of opinions: one camp of educators vigorously opposes any attempt to "rate" the schools according to national standards; the opposing camp holds that only such "rating," painful as it may be, will lead to real improvement. One side holds that to apply a national yardstick to the contest of merit would deprive some children of equal educational opportunities—the opportunities to win scholarships and go to college; the other side replies that the most serious offense against such equality is in permitting some schools—and whole regions—to drift. They hold that the damage cannot be undone by "fixing" the selection along regional lines.

"States Rights" rebellion

Apparently, the rebellion against the "states rights" approach is now growing within the Merit Scholarship Corporation, too. It was learned last week that, in a compromise move toward truly nation-wide competition, the organization will soon announce the introduction of between 25,000 and 27,000 "letters of commendation" in addition to the semi-finalists. Recipients of these letters, which will be signed jointly by the student's principal and the corporation, will be picked on the basis of their national, rather than regional, ranking.

If these letters are concentrated heavily in certain regions, they will openly invite a comparison or "rating" of the educational quality of certain states and even cities. In fact, a test official pointed out that at least one state, this year, would be certain to get no letters of commendation at all: there were no candidates left over, once the semi-finalists had been picked. By the same token, some letter holders will quite probably be academically superior to actual winners elsewhere.

This may drive home—to the delight of some and the dismay of others—the fact that the country is moving toward the use of new national yardsticks. The resulting pressures will be uncomfortable. But, as students and parents are increasingly finding out, comfort is rapidly getting to be obsolete as an educational criterion. **End**



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A digest of current happenings in public education

School to be built despite taxpayer defeats

The school board of Mount Vernon, N. Y., after nine years of frustration at the polls, has decided to go ahead with the construction of a new comprehensive high school, despite the objection of voters.

Mount Vernon is now operating two admittedly out-of-date high schools, one vocational, the other academic. Since 1950, at a series of special referendums, the board of education has been attempting to gain support for construction of a single comprehensive high school on an adequate site. The two high schools now in existence are in the middle of the city.

Bond issues ranging from more than \$10 million to just \$6 million have been rejected by the voters. The school board, by a six-to-three vote, has now decided to go ahead with a \$7.5 million school no matter what the voters say.

"It is our duty," says Board Member Frank E. Pierce, "to establish and maintain schools necessary to meet the needs of the city. This duty has been reposed in the board as a duly constituted body elected by the people."

The school, which is slated to house 2,600 pupils, will be financed by short-term bonds which, under New York State law, the board can issue without voter consent. If the voters should change their minds at the next scheduled referendum, 30-year bonds will be issued. In either case, the school will be built.

Short summer school experiment approved

An experimental five-week summer school, tried out last year in Sewanhaka, N. Y. (See "District experiments with shorter summer session," SM, Aug. '59, p. 26), has won approval from New York's State Education Department.

Under the experiment, summer students attended school for five weeks, instead of the traditional seven. The school day was increased from 80 minutes to 120.

A control group in Sewanhaka took

the traditional seven-week course. Tests showed that below average students did better in the more concentrated period and that better students also preferred the shorter sessions, though they did equally well in either.

In announcing the experiment last summer, Supervising Principal Robert L. Springer had suggested that the more concentrated schooling would be less punitive to students who had to make up missed work. It was also pointed out that it would be possible to hold two five-week summer sessions each year, thereby increasing the opportunity for learning among better students.

18 million school children still in peril of fire

While more than 17 million public school children are being taught under reasonably fire-safe conditions,

there are still about 18 million children needlessly exposed to fire hazards, a recent survey reveals.

There are 4.5 million more American children housed today in public schools where their lives are significantly safer from fire than a year ago. Another 9.7 million children are attending public schools in which some hazards from fire have been reduced.

More than 16,500 schools made major improvements in fire safety during the past 12 months according to the National Fire Protection Assoc. There are now an estimated 63,500 public schools which meet minimum basic standards to assure adequate life safety from fire.

This is the progress in fire safety in public schools since the tragedy at Chicago's Our Lady of Angels School little more than a year ago.

On the other hand, no needed improvements in life safety from fire have been made in about 30,000 schools housing 8.25 million children. And in 36,000 schools, housing 9.7 million

Too good to miss . . .

Out of school . . . A six-year-old first grader in Trinidad, Colo., was only out of school a few minutes recently at the start of a school day, but she came up with a rather unique reason for her tardiness: "I was walking behind a slow dog," she told the teacher.

Out of school . . . A book titled "What is Communism," by Richard Ketchum is out of the Charlestown, R.I., schools. It was dropped from a list of books desired for the school library, according to Superintendent Phillip Kelly, because the title sounded "a little provocative."

Out of school . . . Charlotte Sexten has spent quite a bit of time out of the Columbus, Ohio, schools because of a gum drop. It seems that Charlotte, who is 11, ate the gum drop on the school bus. There is a regulation against eating on that vehicle and as a result she was not allowed to ride on the bus again until her parents reassured the driver that she would refrain from eating while it was in transit. Charlotte was dressed and waiting to go to school every day thereafter, but Bus Driver Darwin Rees refused to pick her up. We assume that the gum drop incident has been digested by now.

Out of school . . . When Passaic, N. J., high school graduates of 1929 surveyed members of their class to find out what courses had been most helpful to them once they were out of school, they got a wide variety of answers. But the most authentic came from one old grad who must remain anonymous. He declared his thankfulness for having stuck to his math lessons. They have proven really invaluable to him in his present profession. He's a bookmaker.

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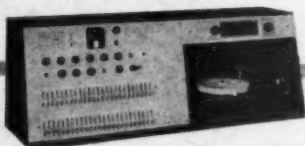
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children, where some fire hazards have been corrected, conditions are still below the minimum basic standards needed to make reasonably sure that these children can escape safely in case of fire.

Grandparents Day held at Connecticut school

Grandparents were the guests of honor in the Osborn Hill School, Fairfield, Conn., on the occasion of its annual Grandparents Day, held recently.

Grandmothers and grandfathers congregated from six northeastern states to see the apples of their eyes in a classroom setting. One-hundred and sixty-seven members of the second-childhood brigade sang songs, ate and played games with their first-childhood relatives.

Grandparents later had tea with the school faculty and were greeted by Superintendent William J. Edgar who explained that they had been invited because so often they are "left out" of educational planning. Sounds like an easy way for any school to help its public relations and reach a group of voters who too often oppose school budgets.

Right-to-work laws hit state education group

The possibility has arisen that state right-to-work laws will be invoked against the Iowa State Education Assoc. as a result of a dispute over compulsory attendance at a district meeting of that group.

A Council Bluffs, Iowa, school teacher, Mrs. Carl V. Blomgren, was docked a day's pay for failing to attend the meeting. The ISEA meeting is included in the regular 190-day work contract for teachers in the district. Her failure to attend the meeting without good reason, Superintendent Russell J. Mourer held, meant that she forfeited pay for that day. The district's board of education did not overrule the superintendent.

Mrs. Blomgren had been a member of the association until this year when she resigned. Since she is no longer a member of the association, she said, she thought she could not attend the district meeting.

Governor Herschel C. Loveless, who was opposed by the association in his bid for re-election—this was the issue over which Mrs. Blomgren resigned—questioned whether the action consti-

Obviously

In Covina, Calif., some third-grade students are taking lessons in French which is why Principal Jim Collins of the Covina School was not startled when one of the youngsters, passing in the hall, greeted him with a, "Bonjour Madam Collins."

"I believe you mean 'Monsieur,'" Collins returned helpfully.

"But you don't understand," the child protested. "I'm not speaking English, I'm speaking French!"

tuted a violation of the state's right-to-work laws. The governor said he doesn't think "it's the intention of the taxpayers who support the schools that a teacher's time be used for any association's activities."

The issue seems certain to be presented to the state's attorney general and may well be heard in court before it is finally decided.

Town merchants help in sartorial education

In Binghamton, N. Y., the problem of improper dress for students has been licked before it started, through cooperation between the schools and a merchants' association.

A group of merchants in the area, organized in a branch of the American Institute of men's and boy's wear, has been doing the major job in impressing on students that school officials—and other adults—appreciate proper dress.

Members of the association speak to students each year and style shows are arranged from time to time in the schools. Tight and sloppy clothes are discouraged before they are purchased.

"We have heard of no dress troubles among the high school students of Binghamton since the campaign was started," one school official said.

Texas book law penalizes school growth

A Texas law on apportionment of textbooks, passed in 1919, is under attack today because it penalizes districts where enrollment is growing rapidly.

This year the Houston district, with



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Rev. Brother Nilus C.F.X.
Principal:
Brother Mark C.F.X.
Architect:
Johnson & Boutin
Washington, D.C.
Electrical Engineer:
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(Circle number 738 for more information)

PLAINEDGE HIGH SCHOOL enhances curriculum with BLONDER-TONGUE CLOSED CIRCUIT TV

BETHPAGE, L. I.—A comprehensive closed circuit TV system is now in use at the Plainedge Junior-Senior High School. It consists of two Blonder-Tongue 'Observer' TV cameras with Automatic Light Compensators, a mobile studio control console, a distribution system for 25 rooms, and 12 standard TV receivers. The complete system, including extra accessories, cost less than \$10,000.

The school has already scheduled 160 TV classroom shows. In one show, more than 1500 pupils witnessed a live demonstration of Japanese art, music and culture. In another, an entire biology class observed the dissection of a frog by the instructor, and then followed the procedure with their own specimens. The system has enabled Plainedge High School to extend its curriculum into areas which would otherwise have been impossible.

The system is easy to operate. Student or instructor operated, Plainedge telecasts can be made from studio, laboratory, or any room in the school. What's more, minute objects can be magnified to fill an entire TV screen for easier examination. Blonder-Tongue's Automatic Light Compensator makes it possible for the camera to provide sharp, clear pictures under any lighting conditions.

System design, installation, and layout was handled by the local Blonder-Tongue distributor, Shamark Distributors, N. Y. C. Maintenance costs for seven months of operation at Plainedge totaled only \$63.00.

Blonder-Tongue Closed Circuit TV cameras and video monitors are now in use in many of the leading schools throughout the country. There's a local Blonder-Tongue distributor who will survey your needs and provide suggestions (at no obligation) on how you can use low cost Closed Circuit TV to enhance the curriculum at your school. Write for his name. Dept. SM-1



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(Circle number 705 for more information)

150,000 students, was short more than 5,000 books. The Spring Branch district, with an enrollment of 15,000, was also about 5,000 textbooks short at the beginning of the term.

The law requires that school districts order no more than 10% more textbooks than were required for the previous semester. But several districts have had growth as high as 15% to 25% and one had a 40% rise in student population in a single year.

"The people of Texas intended that textbooks be provided for all children," commented R. L. Scarborough, textbook director for the Houston district. "We are negotiating with the state in an effort to give us relief."

"I believe the law may need revision. It's obvious that the Houston district is growing more rapidly than [the law allows] but we can't order enough textbooks, because the law says no."

Books are purchased in Texas through the state education agency, which offers each district a choice of five texts (where available) on each subject and grade level. The average daily attendance in a district's schools is the basis of all state-apportioned financial aid to the districts. Schools which want to use texts other than those approved by the state may do so, but must buy them out of local rather than state tax funds.



Attack board failure to back principal

A decision of a high school school board, to overrule a principal's order suspending two students who were alleged to have been drinking at a school dance, has caused an uproar in Washington, Pa.

Principal James Clark of Trinity High School in Washington suspended the two students after the alleged incident and was immediately supported by the board at a special meeting. The district is a jointure and the board is made up of members of four other school boards.

Clark had acted under a school policy that any student coming to school under the influence of liquor would be suspended. A few weeks after he had suspended the two students, the board met again, however, and voted to reinstate both of the boys involved. Only one of the four school boards represented opposed the reinstatement.

One of the two reinstated has been doing very well in school since the incident. The other was involved in a similar situation and chose to quit school the day before Clark was to

Importance of being earnest

Authorities in the La Mesa-Spring Valley, Calif., school district certainly were earnest about their desire to purchase tires through the state's agency for surplus property (See "The great grab bag: Government Surplus," SM, Dec. '59).

Year after year the district sent its request to the state agency. Year after year the answer was "no." Then, suddenly, the big break came. The agency announced that the district could indeed purchase 20 huge bus tires at a cost of just \$12 apiece. The tires are all in good to excellent condition. Bought commercially they would have cost \$120 each.

As a result of its persistence, the district saved its taxpayers more than \$2,100. It seems Oscar Wilde was right. There is an importance to being earnest.

request that the board expel him.

Teachers, civic organizations and individuals in the Washington area have protested the school board's action in, as they see it, undermining the principal's authority.

A similar incident occurred in the district three years ago, at which time the school principal asked the board to suspend a student who had been drinking in school. The board refused, saying it was not a school rule, but three members went before an assembly to lecture the students and warn that no second chance would be offered. No record of those speeches, or of resolutions to expel students found under the influence of liquor, appears in the school board minutes.

Because of the widespread protest over the board's decision, a special committee has been appointed to investigate and formulate a policy covering similar situations.



Georgia education fails, legislative committee says

A five-man committee of the Georgia Legislature has declared that the state's system of public education is a failure. The report was prepared by the Jernigan Committee, made up of two members of the state's senate and three members of the house.

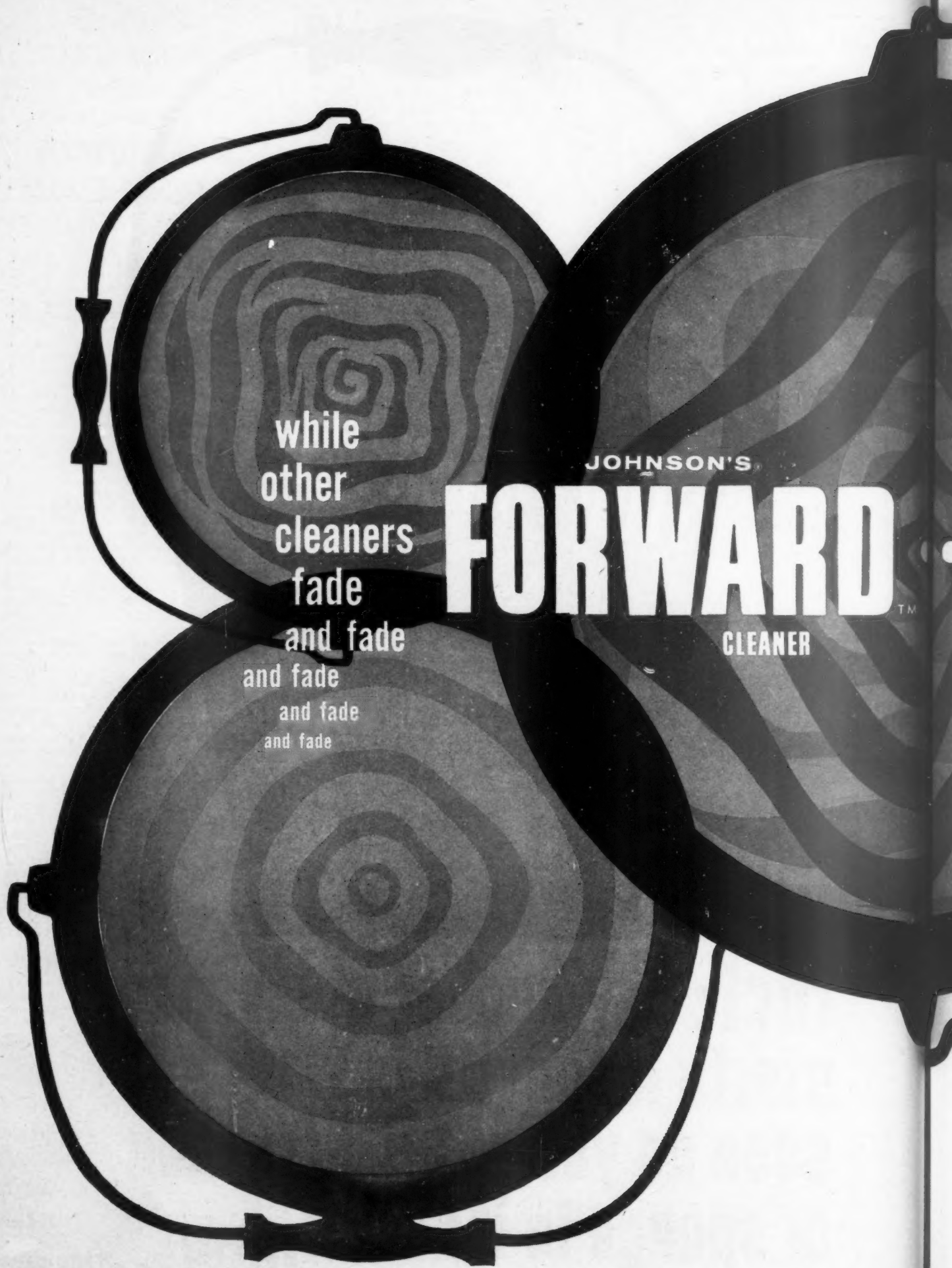
The legislators declared that Georgia
continued on page 32



known

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and fade

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and fade
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(Circle number 727 for more information)

gia's high schools are providing less adequate training now than they did in the 1930's. Too many high schools, they found, were not preparing college-bound students properly while many others are failing to provide proper opportunities to those who terminate their schooling at the end of the 12th grade.

Major cause of the problems, according to Representative Battle Hall, is a lack of teachers. "The most urgent problems facing our schools," Hall declared, "is the lack of an adequate supply of well-trained and dedicated teachers.

"The situation will improve very little until this condition is corrected. Almost all efforts to improve our schools should be in this field until such time as the situation is improved."

Georgia pays an average teacher salary of about \$3,600, almost \$1,000 below the national average. As a result the state loses a high proportion of its best teachers to other states or to private industry.

Although it is doubtful that the 1960 legislature will pass laws designed to raise teacher salaries, committee members pointed out that the

governor could use emergency powers to appropriate money for higher salaries from the state's surplus fund.

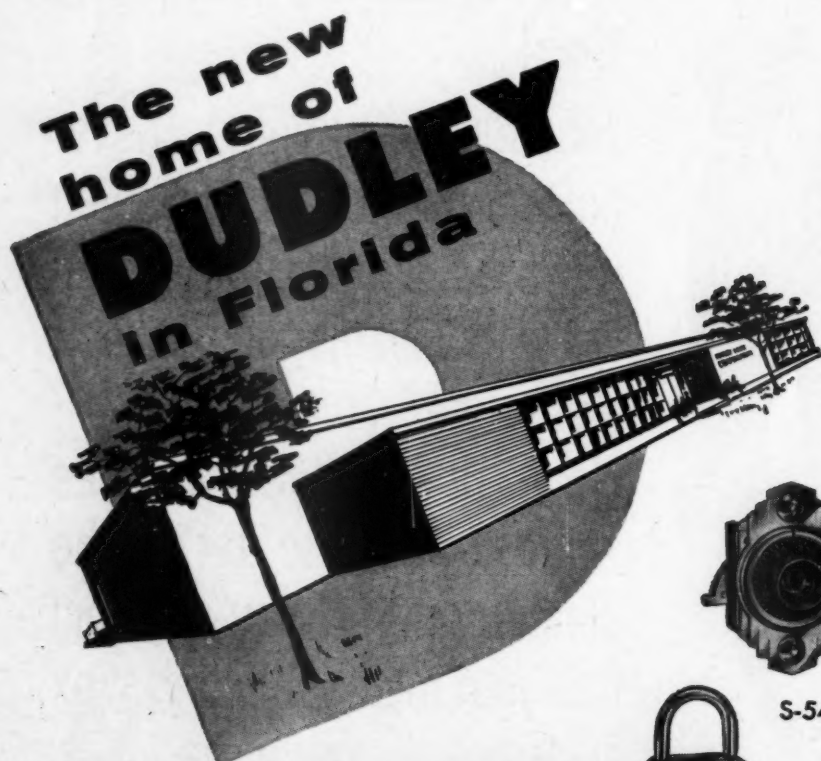
Stock building plans gain in New York State

A proposal to provide school districts with stock building plans won the qualified approval of New York Governor Nelson Rockefeller. The governor has called for the establishment of about six plans, varying principally as to size, to be available on a voluntary basis to districts in the state.

A bill making the use of stock plans mandatory was passed by the state's Assembly last year but died in a Senate committee. The bill's sponsors plan to re-introduce it this year but without the mandatory aspect.

Architects campaigning against the idea have pointed out that most states that attempted to use stock plans have dropped them (See "Why can't we buy stock plans for schools?" *SM*, Dec. '59); that they encourage the use of out-moded ideas and materials; and that little money is actually saved, since architectural help and supervision are still required.

The issue will come up before the state's legislature next month.



New, air-conditioned plant

Dudley Lock Corporation has moved *locks, stock and factory* to Vero Beach, Florida.

Having outgrown the factory, new only a few years ago, in Crystal Lake, Illinois, a new plant became a necessity. After studying many communities Vero Beach was selected for a number of good reasons.

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Parents name citizenship, history most needed courses

Parents in the Los Altos, Calif., area favor the teaching of citizenship and history as the two most important high school subjects. More than 3,000 parents took part in a survey on the purposes of education, conducted by the Los Altos Area Education Council.

Parents were asked to express their feelings on 16 areas of high school instruction. They were to indicate whether they considered them "essential," "important," "okay if time and money is available," "not important" or "should not be offered."

Citizenship led the list of subjects considered essential or important by parents, garnering 97% of the respondents. World history (95%) and foreign languages (94%) were next in line. Science (91%), remedial arithmetic (81%) and vocational education (79%) also rated high. Sex education was considered important or essential by 77% of the respondents, driver training by 67%. Only family life skills (42%) and social customs and manners (45%) failed to attract a majority of favorable votes. Just sprinkling of "should not be offered" votes were recorded. (continued on next page).

The survey also considered the elementary school curriculum, assuming that basic subjects were a necessity there but asking parents to ballot on other classes they thought desirable.

Tops on this list was personal hygiene (84%), followed by sex education (73%), music appreciation (69%) and foreign languages (68%).

School-trained drivers rate low in Texas survey

Much to the surprise of Texas state insurance and education officials, an incomplete survey indicates that driver training graduates had more accidents than other young people without training.

The survey was made by the Texas State Board of Insurance and covered several thousand young people insured under the driver training program. The preliminary report showed driver training graduates had 12% more accidents, over the past three years, than other young people under 25 without training.

"It's hard to believe this is true in Texas," said Louis Spears, consultant for safety education with the Texas Education Agency. "The reverse has shown up in other states. Surveys show youngsters who have had driver education have had 50% fewer accidents than those without training."

On a three-year average, the board's preliminary report showed, drivers with education credits reported 7.78 accidents per 100 insured vehicles. Drivers under 25 without training reported 6.83.

Superintendent checking English compositions

Something of a storm is brewing in the Washington, D.C., schools, where Superintendent Carl F. Hansen has asked to be shown a representative sample of English compositions by high school students.

Hansen has complained that some English teachers are requiring a "disappointingly" small number of compositions.

"I'm taking it for granted that if we are going to teach children to write, they must be required to do a basic amount of writing," he said.

Some teachers have called the superintendent's actions "snooping" and have complained rather bitterly to newspapers about it, but Hansen stated that he felt the protesting teach-

ers did not represent the views of his staff.

The superintendent asked to see the compositions "because we must be interested in quality as well as quantity." He also indicated that a minimum program of composition assignments is being worked out.

Hansen said of the protesting teachers: "If they are frightened, they misinterpret my purpose. But I certainly have the right to know—if anyone has—what goes on in our classrooms."

Industry, schools sponsor teacher-scientist exchange

Schools and industry in the Pittsburgh area are participating in an annual teacher-scientist exchange designed to acquaint those from the classrooms with the latest developments in their fields.

Teachers are invited to tour one of the large research laboratories in the area—this year it was the Alcoa plant at New Kensington, Pa.—and to participate in luncheon and dinner meetings.

The participating firms supply scientists to the schools to teach the vacated classes for one day. The scientists usually dwell particularly on the opportunities in business for persons with a strong science background.

Nearly 300 science teachers participated in the one-day exchange this year.

Schools run program for prospective substitutes

A unique six-week workshop for substitute and prospective substitute teachers is being conducted by the Wellesley, Mass., schools. A series of one-and-one-half-hour weekly sessions has been scheduled.

Thirty-three potential substitutes have signed up for the course, which is designed to give them a background of information on the organization of the schools, their philosophy, curriculum and methods of operation.

Panels of experienced teachers, supervisors and principals are addressing the meetings, according to Assistant Superintendent Roger Woodbury.

"Although participation in the workshop is no guarantee of employment," Woodbury says, "the program will help build a backlog of substitutes upon which to draw. In addition, the program is proving to be another effective public relations vehicle for our schools."

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anything,
but don't say **MERIT PAY**



SCHOOL MANAGEMENT's second annual merit pay survey reveals an apparent and surprising trend *away* from the idea of merit pay.

■ ■ ■ One year ago SCHOOL MANAGEMENT printed the results of an exclusive survey of school board presidents and superintendents on the question "Will your district have merit pay in the next five years?" (See "So you're thinking about merit pay" SM, Jan. '59). At that time, almost half the school board presidents and 35% of the superintendents said yes.

Exactly one year later SM sent almost the identical questionnaire to another sampling of superintendents and board presidents. On the surface, the results appear to have uncovered a trend *away* from merit pay plans. This time just 34% of the board presidents said yes, along with a like percentage of superintendents. (For a full breakdown on responses this year and last, see page 35.) But a more careful analysis of the returns indicate that surface comparisons may be misleading.

The lessening of support for merit

pay seems to stem from a number of sources. One is a feeling that teacher salaries are reaching a proper level and that no further inducements are needed. As one school board president said: "In recent years minimum and maximum teacher salaries have been steadily going up in surrounding districts and in our own. When this levels off and teachers at maximum are not getting an increase, we may then think about rewarding outstanding teachers in one way or another." On the other hand, in its earlier merit pay survey, SM simply asked those answering to express an opinion only on whether merit pay was coming to their district within five years, and the reason for the response given. This year a new question was added: "There are many ways to reward outstanding teachers without having a formal merit rating system. Has your district *deliberately* used any such method to increase outstanding teacher's pay?"

Almost 50% of the superintendents and school board presidents who said merit rating *isn't* coming, indicated that they were using other methods to reward outstanding teachers. Thirty percent of those who indicated their districts had, or would have, merit pay, stated that they too were using other methods to reward outstanding teachers.

Emotional phrase

In other words, strip away the emotional words "merit pay" and 29% of the districts responding *have* some sort of plan for rewarding superior teachers. Further, more than half the responding districts expect to reward them in the next five years. And had the original question been worded "Do you think your district will have *rewards for superior teaching* in the next five years?" the percentage probably would have been much higher.

Just what are the methods used by districts to pay their teachers

"Do you think your district will have merit rating in the next five years?"

... this was the question posed to a carefully weighted sample of school board presidents and superintendents in a national survey conducted in November, 1958, and repeated a year later by SCHOOL MANAGEMENT. These were the over-all results:

	YES		NO	
	Last Year	Now	Last Year	Now
Total response	39%	34%	61%	66%
School board presidents	48%	37%	52%	63%
Superintendents	35%	33%	65%	67%

The respondents both years were also asked, in a forced-choice question, to give the "reasons" why they had answered "yes" or "no." It was possible to give more than one answer.



THOSE ANSWERING "YES"

	Last year	Now
Total response		
The public will demand it	37%	44%
We need it to get good teachers	51%	37%
It's the only fair thing to do	49%	60%
Good teachers will want it	49%	44%
It will save us money	0%	0%

School board presidents		
The public will demand it	21%	50%
We need it to get good teachers	57%	50%
It's the only fair thing to do	79%	63%
Good teachers will want it	57%	50%
It will save us money	0%	0%

Superintendents		
The public will demand it	45%	41%
We need it to get good teachers	48%	32%
It's the only fair thing to do	37%	60%
Good teachers will want it	45%	41%
It will save us money	0%	0%

THOSE ANSWERING "NO"

	Last year	Now
Total response		
Teachers won't stand for it	35%	37%
You can't measure good teaching	35%	27%
It will hurt our teacher recruitment	12%	8%
It will ruin teacher morale	50%	42%
It will cost too much	35%	24%

School board presidents		
Teachers won't stand for it	40%	50%
You can't measure good teaching	33%	31%
It will hurt our teacher recruitment	7%	6%
It would ruin teacher morale	47%	31%
It would cost too much	27%	19%

Superintendents		
Teachers won't stand for it	34%	33%
You can't measure good teaching	36%	26%
It will hurt our teacher recruitment	13%	9%
It would ruin teacher morale	51%	47%
It would cost too much	38%	26%

OBSERVATIONS

What the "YES's" say—The decline in the number of school board presidents who believe that merit pay will come in the next five years is rather startling. Perhaps more startling is the change in why they think as they do. A year ago, most board presidents cited the teachers as the main reason they expected merit pay to come—stating that it was the only fair thing to do, that good teachers will want it and that it was needed to get good teachers. Although these still rate high among the choices, the huge jump in the number citing "the public will demand it," seems to indicate growing public pressure, at least in some communities.

Paradoxically, superintendents, who a year ago cited demand from good teachers and the public as the main reason merit pay would come, have now swung to the argument board presidents used a year ago and then backed away from somewhat—that it is the only fair thing to do. Recruitment,

as a factor in desiring merit pay, lost favor with a huge number of superintendents.

It should be noted that for the second year in a row nobody cited saving money as an asset of merit pay. This argument seems, once and for all, to be dead.

What the "NO's" say—Teacher pressure appears to be the major factor working against merit pay, judged by the answers given on this side of the issue. Teacher morale and the problems of measuring good teaching also ranked high. The cost of merit pay, which was a strong factor against it a year ago, does not seem to be a major stumbling block at this time. It's interesting to note that among school board members, a large percentage this year shifted to "teachers won't stand for it," but an even larger group swung away from the statement "it would ruin teacher morale." These trends would appear to contradict one another.

for superior work? One is to reward them for extra work, extra responsibilities or extra thought. These methods would seem to meet most objections raised by teachers. Yet even here, somebody must judge a teacher's work, whether by a written scale or against his own personal likes or dislikes.

Other extra pay plans get a little closer to merit pay itself.

"We reward outstanding teachers by calling them department heads, coordinators, consultants or special teachers," an eastern superintendent stated. "We have a scale of extra-curricular pay based on time and responsibility point factors." But this district does not have merit pay.

Appointing department heads, supervisors and coordinators seems to be a favorite way to reward top teachers. One school board president reports that each elementary school has a "dean of the eighth grade, dean of the seventh grade, etc." But this system does have certain drawbacks.

First and foremost, it still means that each teacher must be rated by an administrator, so that the proper teacher can be found for the job. More important, using these titles as a method of raising pay can actually diminish the function of the title. "In most schools," a superintendent said, "department heads are no more than the chairmen of department meetings. I prefer to make my department head a real administrative and curricular leader. If I dilute that function by using the title to accomplish a pay raise, I am defeating its real purpose."

Another favorite method of awarding merit increases without merit pay is to assign extra duties. "We give additional increments for additional functions, e.g., sponsoring a school paper or yearbook, an athletic team, etc.," a Midwestern school board president reports.

"Any teachers doing extra work or making outstanding contributions to the school have been paid extra. Specified amounts are paid for specific work and bonuses are available for outstanding work not in the line of duty." This reply came from a Southwestern district that does not believe in merit pay.

"We give our better teachers preferred consideration for extra-curricular assignments," an eastern superintendent revealed.

All of these plans, like the department head idea, accomplish their purpose—rewarding good teachers without involving them in merit pay. But there's a catch here too. "Let's take an English teacher," a superintendent suggested. "I encourage my teachers to give a lot of written work, to require students to write a theme a week. The better teachers do it. This means they have to spend many extra hours reading and correcting these papers, hours during which our less-able teachers, who assign many fewer writing assignments, are free to do other things.

"Now these less-able teachers, with considerable free time, are available to participate in many more extra-curricular activities than my best teachers. If I were to pay extra for this extra work—and say this was a reward—who would I be rewarding? My poorer teachers! I'd actually be putting a premium on assigning *less* written work, because then a teacher would have more free time with which to earn extra money."

The list of ways to reward outstanding teachers is a long one. Just for fun, here are statements from six districts concerning the way they reward their best teachers. Test yourself. Guess which ones have merit pay and which don't.

"We give such teachers an increase in salary beyond their state mandated salary."

"Teachers recommended by the administration have been given an extra 'reward.' It was used to correct inequities."

"We promote them in some way."

"Double increments are given to a few outstanding teachers as an incentive to continue their outstanding work and to remain in our school system."

"We use an incentive salary plan designed to encourage all teachers to grow in service. We feel that this plan has a good over-all effect on teachers."

"Given extra-curricular duties and made department heads."

Only one of these districts, the

WHY

ARE MOST TEACHERS OPPOSED?

last, claims to have merit pay. None of the others has merit pay or expects it to come within the next five years.

In an effort to reward their better teachers while avoiding the stigma of merit pay, schools have turned to a whole variety of formalized plans that are much more than a camouflage merit system. Here are some of them as compiled by Rita Barrows, a Westport, Conn., teacher who attended the merit pay workshops at Syracuse University and has reported on them for her school system and for *SCHOOL MANAGEMENT*.



**Chairman and
department head**

Grade chairmen and department heads with actual administrative functions are growing in popularity (*see above*). Such chairmen can serve to coordinate their areas, to help new and weaker teachers and to point out new areas worthy of exploration. This can be a help not only to fellow teachers but to principals and superintendents as well, since the outstanding teacher is able to perform a valuable administrative function.

Further, it eliminates one very serious objection to merit pay. It en-

The major opposition to any form of merit pay has come from the very people it should help—the teachers. This opposition seems illogical to proponents of merit pay. "After all," they say, "we're offering teachers something more than they're getting now, we're offering motivation and stimulus to do a better job. Why won't they accept it?"

School Management asked this question of a group of teachers. Why, if merit pay will mean more money to you, are you opposed to

it? Their answer is an interesting one:

Stimulus and response is an old way of influencing behavior. It works beautifully in the laboratory. You put a small animal into a maze of some sort and apply the proper stimuli at various points and he eventually learns the proper response. In some cases it works with people, but not in every case. It works most at the least intelligent point of human behavior; least where the most thought occurs. It

negates the idea of free choice because the choice is obviously manipulated. You are being rated against a set standard. Deviation is not encouraged. And to the intelligent person this is abhorrent. This is not to say that teachers won't respond to stimulus, but offering a teacher more money, period, doesn't look good to him. He feels this is not professional. So the problem is to make merit pay look good on a professional basis to the teacher. This is where it has fallen down.

courages, rather than discourages, the superior teacher to pool his knowledge with his fellows. Many teachers object to merit pay because it would tend to cause each teacher to keep his best ideas for himself.



Team teaching

Team teaching has been suggested as another substitute for merit pay. In this type of organization, there may be master teachers, associate teachers, and teacher aides. Simply stated, the many jobs hitherto performed by the teacher are divided into professional and nonprofessional categories. The aide does not teach, but may be asked to perform such duties as keeping the register of attendance, making reports, arranging bulletin-boards, correcting objective-type tests, drilling one group of children while the teacher works with another. Usually the class size is increased.

The theory is that instead of two teachers filling duplicate roles in neighboring classrooms, each one spending half the time in chores, one teacher can teach twice as many children, while the aide takes care of the nonprofessional duties for the same group. This allows a higher salary schedule for the teacher,

since the aide is paid on a scale comparable to secretarial or clerical workers in the area.

Such plans are for the most part still in the experimental stage, but they may be the answer for some districts trying to find enough teachers for the growing number of children. And they may help in finding enough money to pay teachers adequately.



Track plans

The track plan is a new one that has been developing. It is designed to recognize that teachers have a varying amount of time and energy to devote to education, regardless of their interest or dedication.

Under this plan, three or four tracks are established for teachers. Each track demands a different amount of time to be devoted to the job. Track one usually entails a normal teaching load plus attendance at weekly staff meetings and monthly PTA gatherings. Teachers in track one would be expected to contribute no more to the school.

A married woman, returning to teaching when her children are in school, might feel that this is all the time she can honestly give to her job. Likewise a teacher nearing retirement, or one in poor health, may

feel that this basic load will tax her to the limit of her ability.

The second track in this type of plan includes everything in the basic track plus such added duties as extra-curricular coaching, supervising the year book, or participating in curriculum planning groups. A teacher in this track would be paid somewhat more than a teacher on track one.

Some plans call for three tracks, others for four. The last track, whether the third or fourth, is reserved for the "total" teacher. This is the person who is making teaching a life career and is really working at it. It entails topnotch work in the classroom, continued personal education, professional activities beyond the normal workday and, almost always, summer activity in education.

A person on this track is paid at a salary high enough to equal what he might earn in business or industry and frequently the salary is as high as that of some administrators in the school.

The track system is explained to each teacher as he enters the school system. The choice of tracks is left completely up to the teacher and he is able to periodically switch from one to another if he wishes.

Thus a mother of a teenager who returns to teaching, might select track one until her child is in college or married. At that point she might

ALL THAT GLITTERS IS NOT GOLD

Teacher opposition to merit pay (see pages 36 and 37) stems in large part from a feeling that money, alone, is not sufficient incentive to maintain teacher interest in a job. These people feel that they are dedicated professionals who need other forms of payment.

School Management has asked Mrs. Rita Barrows, language teacher in the Westport, Conn., schools, to outline for us some of the other methods of "payment" a school district can use to attract and hold superior teachers. Her reply follows:

Superior teachers are interested in much more than money. They are interested in professional satisfaction. That is the reason why two neighboring districts with equal salary scales may have completely opposite experiences in trying to attract and hold good teachers.

There are many ways to make a teacher's job more satisfying, professionally. Among them are the following:

1. Clerical help. Some districts assign clerk-typists to the teachers, either on the basis of one clerk for a block of five teachers, or a group of clerks available as a "pool" to all teachers. The clerks take care of such duties as typing and duplicating materials and tests; proofreading English compositions; grading objective-type tests; preparing charts and other classroom materials; keeping registers; completing reports. In some cases, such help makes it possible for teachers to carry more classes without actually having a heavier load. Teachers like the idea of being free to teach without the clerical load that traditionally has gone with classroom teaching. This is an important method of "payment."

2. Classroom equipment. Well-equipped laboratories and workrooms, electronic classrooms and language laboratories, sufficient projectors and record players, all these are regarded by most modern teachers as important aids to teaching. The district with such equipment may attract more excellent and forward-looking teachers than its neighbors.

3. Business equipment. Typewriters, duplicators, and adding machines, for instance, are important to today's teachers. These mechanical aids allow her to get more done, more effectively, every day.

4. In-service courses. A good program of in-service instruction, with point credits, similar to those granted by universities, counting toward pay increments, is another way to reward and encourage teacher excellence. Teachers in districts everywhere like the opportunity to study, on their home grounds, materials or problems that are pertinent to their own classroom experience or to their own school system. They generally feel that such courses are more specific and "down-to-earth" than the general courses given by colleges and universities.

5. Sabbatical leaves. This is not a new idea to institutions of higher learning, of course, though it is rather new to public schools below college level. Many districts are now seriously considering plans to allow teachers, especially those of long and outstanding service, to spend a semester or a year in travel, study, research or some other non-teaching activity. Plans now in operation range all the way from granting full pay for a semester to granting permission for leave without pay. It is usual to hold the teacher to a promise of at least one year's service in the district upon returning from the leave.

All of these plans are aimed at making the life of a teacher more pleasant and more professional. They help the district by attracting better teachers and holding them and, even more important, by improving instruction by all classroom teachers.

elect to add to her teaching and professional responsibilities.

The problem that the multiple-track system tries to meet is two-fold. It recognizes the need for giving able teachers a satisfying salary, and, in addition, it recognizes the need for giving ambitious teachers room for growth within their chosen field.

It is in meeting this second part that this plan is said to differ from the older concept of "merit pay." And there is no stigma attached to being on a "lower" track. The theory is that these teachers have chosen not an inferior road, but rather a narrower one, so that, within the sphere they have chosen, they can devote themselves to being superior.



Summer workshops

Another plan being tried in several districts is that of summer curriculum workshops. Essentially, this is a group of teachers working for six or seven weeks during the summer to revise, modernize or otherwise improve the curriculum in one subject area. For this they are paid a weekly salary (very often considerably less than their regular weekly pay).

To many people outside of education, this idea of working during your vacation at a lower pay than ordinary would seem a penalty, rather than a reward. But teachers do not seem to feel this way.

The teacher who is vitally interested in his job, and in education as a whole, is alert to the changing needs of his pupils. He keeps abreast of the improvements being made in other districts and develops ideas of his own to bring his materials and methods up-to-date. He would gladly work, with no additional pay, in order to bring about better education for the children in his town. In years past, perhaps he did work on curriculum committees, meeting several hours weekly during the winter, to try to make things better. Then, in the summer, he waited on table or filled in for vacationing milkmen.

The workshop is an attempt to combine the professional and financial needs of the individual while buying expert help for the system.

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AN INTERVIEW WITH Donald Wyckoff



Can we afford the time to teach fine arts?

Alarmed at the growing tendency to down-grade high school courses in the arts, Pascack Valley Regional High School in Hillsdale, N. J., has developed a related arts program that has sparked new interest in the subject.

■ ■ ■ Art, music, industrial arts and homemaking have been combined in the Pascack Valley, N. J., regional high school into a single related arts program, required of all freshman students.

The freshmen are divided into two sections. One third of each section takes art on any given day while another third takes music and the other a combined industrial arts-homemaking class. Both sections meet everyday of the week.

After two days in one subject, students move on to another, so that a student taking art Monday and Tuesday will be in a music class

Wednesday and Thursday. Friday and the following Monday that same student will take homemaking and industrial arts. On Tuesday the cycle starts again. This schedule is not rigid. It can be altered by the teachers at anytime to fit specific situations and needs.

Pascack's unusual related arts program is designed to accomplish several things: 1) to provide a better and more interesting method of introducing high school students to the arts; to provide them with a better understanding of the relationship of the arts and with an opportunity to develop skills in them, and

3) to give needed added emphasis to courses that are too often disappearing from the high school curriculum because of perfunctory presentation.

Misplaced emphasis?

In the last few years, high schools everywhere have put extra emphasis on courses in the sciences and mathematics. Often this emphasis has been at the expense of other vital subjects—English, history, languages and physical education. But the "related arts" have suffered the most, because of the fact that in most states these courses are not

mandated by law. Students must take at least minimum schedules in English, history, etc. So the tendency generally has been to introduce more of the "vital" science courses at the expense of the "minor" subjects, such as the arts.

To combat this trend towards the de-emphasis and eventual elimination of the arts, the Pascack Valley program in related arts was developed. By mandating that all students take it, and by assigning it five days a week, the course has been given the stature of a major subject, though, because specific homework is not assigned, it is still granted only minor scholastic credit.

What is related arts?

"Related arts programs are nothing new," says Teacher Don Wyckoff, coordinator of the Pascack program, "But what has been usually called related arts in the past is not far removed from the traditional approach and does not accomplish its purpose.

"Traditionally, related arts programs are project centered. That is, a student will make something. Let's say it's a tablecloth. The design will be made in art. A silk screen frame will be built in industrial arts, the fabric prepared in homemaking and then it's back to the art studio to actually do the printing. This is related arts as it is usually organized. Only the student seldom sees the relationships. All he knows is that something which is known as an art product is not made only in the art studio."

There is another way to relate the arts. In this instance the students taking the course are usually divided into four groups. Each group will take art for nine weeks, music for nine weeks, industrial arts for the same length of time and drama or, perhaps, homemaking for nine weeks, too. Here, the only relationship established between the arts is the fact that the same time period is used throughout the year, but each course might as well be separate.

"We disagree with this kind of block scheduling," Wyckoff states, "because it says that the child doesn't need experience in one of the
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SOME WAYS IN WHICH ART

LINE



Vertical lines, horizontal lines, diagonal lines, busy lines, lines in motion are all a part of the experience. Students may work with lines in motion and in space or on a flat surface. The bull is after a Picasso line drawing.

SHAPE



The shapes which we see in nature, the symbolic shapes which relate to everyday life, and the shapes we create, are a part of our experience. Students may work with clay to develop functional, yet aesthetic shapes.

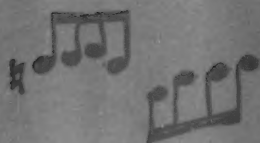
FUNCTION



All products of the craftsman must perform a functional service. With experiences on the mechanical and hand looms, students learn to develop beautiful designs which are well crafted to meet the requirements of use, as rugs, mats, drapery fabrics.

CONCEPTS ARE APPLIED IN RELATED ARTS

MUSIC



The melody line of familiar music evokes various moods from young people. Students develop their own melody lines by composing original music which they sing or perform on different instruments.

INDUSTRIAL ARTS



Lines decorate, lines strengthen, lines become the structure for many industrial designs. Young people have an opportunity to design and create functional objects by bending lines of metal rods.

HOMEMAKING



The utilization of line through floral design and table decor forms one of the experiences for the students. The lines of natural forms of flowers and leaves lend themselves to rhythmical use in space in various arrangements.



A shape in music may be created by using more than one instrument playing parts which have been student composed. Young people create shapes when they use the baton in their conducting experiences.



The utilization of shapes in the design of buildings and furniture opens up opportunities for the students to construct small pieces of furniture which have been designed as functional shapes employing wood and metal.



Along with experiences in fabrics and clothing construction, young people learn about shape through a study of the human form. They learn how to modify and enhance the human form through skillful use of design and fabric.



One of the functions of music is to entertain. Students develop abilities to play instruments and sing compositions which they have written. Presentation of these compositions by the students is one of the performing experiences.



To discover how well their designs look and work, and to gain experience with some of the skills, students build useful products. They evaluate the products in terms of functional design; their skills in terms of functional usage.



Food is to be seen and finally eaten. It must be attractively presented and appealing to the sense of taste. Students planned dinners, cooked and served. How did the food taste? Was it appealing? Nutritious? All are functions of the meal.



creative arts more than nine weeks in the year. Usually, the emphasis in such a program is on developing skills rather than understanding.

"We know, too, that it would be unfortunate to see a freshman only as he is in September and October, because they differ extremely from what they are during the last nine weeks.

The Pascack approach

"Our program is concept centered," Wyckoff explains. "We don't work on a particular project as an end in itself, but instead as a means to understanding a broader *concept*. And this concept is the thread that ties together each of the individual areas.

"For example, our first section of study this year was 'line.' We studied line as it applied to art, to music, to industrial art and to home-making. We developed a relationship in the use of lines in each area.

"From line we moved on to shape, then texture, color, function. Perhaps we will study rhythm later in the year. Frankly, this being an experimental course, we don't know just where we'll go from here. But whatever we do, it will be based around a concept that can be utilized in each of the four areas—and in other areas, too.

"We have shown, for instance, that line can apply to poetry, to mathematics, even to history. So you see we have made our related arts course into something of a basic philosophy study. We have made it into a really vital part of each student's school experience."

There are about 275 students in Pascack Valley's freshman class. Related arts is scheduled in the third and seventh periods of each day. To introduce each new concept, an orientation session is held in the school auditorium, at which time the full nine-man staff sets the stage for the kinds of experiences which they hope to develop.

"We use simple everyday examples to show these concepts," Wyckoff explains. "For example, a person sleeping forms a horizontal line. When he sits up in the morning you have a horizontal and a vertical line. Most of us then fall back into a horizontal. That up and down can be duplicated in music. The walls of the auditorium are made up of rectangular blocks. There are your horizontal and vertical lines again. One of our teachers in homemaking wore a skirt made up of nothing but squares—horizontal and vertical lines.

"This is the orientation. Students start to *think* about lines, different

"We do not believe in the approach 'Here's a brush, go create.'"

kinds of lines. They see lines on paper, lines in people's faces, lines in plays. The whole world is made up of lines.

"Then we go into our various sections and work out actual projects. But these are not the usual 'build a box' projects. For instance, in music some students start to learn how to read lines of music. In art students work in ceramics. Others draw or cut or paste. Each section, incidentally, works in a slightly different way—depending on what interests the students have developed. Many different kinds of things happen. Last year, for instance, we drew the whole freshman class together in one big project that resulted in a Christmas dramatic presentation."

A guidance tool

To the high school staff, related arts is a better way of teaching the arts. But to the administration, the course has other great advantages.

"The related arts people are the only faculty members in the whole school who see the freshman class as a single unit," points out Superintendent James McNeil. "They can tell us more about what that class will be like as seniors, than anyone else.

"The course has turned out to be a great boon for our guidance people. They turn to Mr. Wyckoff and the other teachers for aid with freshman problems and for insight into specific children.

"Also, the related arts course is somewhat informal. Students feel this informality and react to it. We find that they come to the arts teachers with problems that they would never discuss with anyone else."

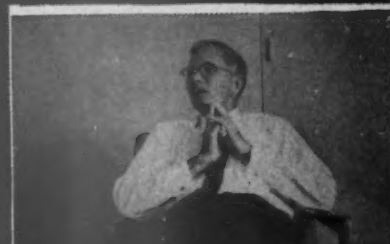
What do students think of the course? "They seem very enthusiastic about it," says Wyckoff. "They resented it when we first started the program because of the time we were demanding and because it was still project-centered. But I think the real proof is the fact that students in the sophomore and junior years are demanding more advanced courses in these subjects. Enrollment in the art department has increased from one elective class when we started to 11 elective

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Why
all
the excitement
about

WRITTEN SCHOOL BOARD POLICIES?

AN INTERVIEW WITH



ROBERT E. WILLIS



W. A. SHANNON

Ten years ago, it was a rare district that concerned itself with written policy statements. Today, boards are being urged—and are urging themselves—to codify rules of operation. This article will tell you what's behind the big push, why people think it's important and how to prepare a policy manual.

■ ■ ■ For almost 20 years, between 1930 and 1950, the American school board declined as an administrative and policy-making body. The superintendent became the dominant force. He ran the school district pretty much in his own image. He had a board, of course. But usually it was made up of "leading citizens" who, in the spirit of doing their civic duty, were prevailed upon to accept a school board appointment.

The post-war population boom changed all that. Families moved to the suburbs. The school-age popula-

tion skyrocketed. And taxes—particularly property taxes—began to double and, sometimes, triple.

To the rising dollar cost was added a new element—young homeowners, better educated than their parents, who had an active and compelling interest in the details of education.

This pressure produced a new kind of school board member. No longer the "village squire," he was a man, or woman, who often contested the election of an older incumbent. He was a political candidate who campaigned with a pro-

gram in mind. The line between board and administration became blurred.

How a board delegates

After a decade, some of the early enthusiasm for "running with the ball" seems to have begun to diminish among school board members themselves. But the revolution has occurred, and it's safe to assume that the old order is gone forever. Today, school boards are beginning to seek a fresh approach to a shared responsibility between lay citizens and professional staff. The



"No two districts can, or should, have the same written policies."

SHANNON

readjustment isn't easy, nor is it a consistent pattern across the country.

Not the least of the problems is the manner in which state laws complicate the delegation of decision-making from board to staff. Some things can't be delegated. For example, in a recent study of board delegation of purchasing authority, Assistant Superintendent Jack Sadler of San Bernardino, Calif., reported: "It is clear that administrators who contract to make purchases for their district in advance of board approval are moving at great personal risk. In the absence of *written delegations*, which would be illegal, the administrator is forced to engage in a gigantic guessing game as to whether his personal contracts will be validated." Sadler points out that some administrators have been sued personally by contractors when the board failed to support their actions.

What can be delegated?

During the last few months, SCHOOL MANAGEMENT editors have tried to clarify the extent to which a school board can—and should—delegate decision-making. It has been a tricky job. The question of "how much" to delegate is a matter of local school board option. It's tempting to stand on a soap box and preach one's own prejudices. That's what most of the people interviewed ended up by doing. The best an-

swer to this question was obtained in a tape-recorded interview with Robert E. Willis of Bradenton, Fla., who is president of the National School Boards Association; and W. A. Shannon, executive director of the association. That interview is reported below.

On the question of *how* to set up the mechanics of delegation when it is legally admissible, one answer came through clearly: *a board must begin its delegation process by preparing a clear and well-organized written statement of school board policy.* The object of this written statement is to try to decide, in advance, in broad terms, how the board would probably act in most situations. It gives the administration latitude in day-by-day decision making. By the same token, it is categoric in those areas where the board wants to spell-out its attitude.

But even this over-simplification is a fuzzy definition of written school board policy. Among other things, it mixes together statements of policy and simple "rules and regulations." This separation, never easy to make, actually need not be made, however. Every board can find the path that best suits its needs. For the board that is uncommitted, though, a joint statement issued in 1955 by the American Association of School Administrators (AASA) and the National School Boards Association (NSBA) will be useful:

"School board policies are statements which set forth the purposes and prescribe in general terms the organization and program of a school system. They create a framework within which the superintendent and his staff can discharge their assigned duties with positive direction. They tell what is wanted. They may also indicate why and how much.

"There is growing acceptance of the view that policies should not deal with the detailed descriptions of the ways in which the purposes and objectives are to be accomplished. These specific directions, telling how, by whom, where and when things are to be done, are coming to be labeled as rules and regulations. They apply policy to practice. It is possible, even likely,

that several rules or regulations will deal with the application of one stated policy."

Q *Mr. Willis, if you took 10 school board members from different areas, and asked each of them to define the term "school board policies," you might get 10 different answers. What do you mean by board policies?*

WILLIS: We mean policies which are rules of procedure; policies on the educational program; policies covering the way personnel will be hired, promoted and paid; policies for the operation of the schools; policies for the conduct of school board meetings. Actually, it is a broad term, and I am using it in its broadest sense. Remember, the school board is a policy-making group, and I think it is important for the school board member to understand that he or she is a policy-maker and not an administrator. When we speak of written policies, we may mean a set of written statements to be used by the administration to guide it in the operation of the district's schools.

Q. *Does that imply a total guide for the administrative staff?*

WILLIS: Your word "total" might be more than I have in mind. Actually, I see it as a *basic* guide. It gives the staff a kind of over-all rule. The actual carrying-out of a policy, particularly as far as detail is concerned, is the administrator's job. What we are doing is establishing ground rules so that the administrators can put policies into practice.

Q. *As you have defined them, school board policies are not a fixed thing. As new problems arise they would be amended, virtually on a continuous basis?*

WILLIS: They are always subject to change and to review. In fact, they should be given periodic reviews by the board.

Q. *Can the National School Boards Association (NSBA) design a general set of policies that would be usable in any district in the U.S.?*

WILLIS: No. Written policies vary from area to area. There is no par-

THE ADVANTAGES OF WRITTEN SCHOOL BOARD POLICIES

1. Foster continuity, stability and consistency of board action.
2. Enable the board to provide for many affairs or conditions in advance of their happening.
3. Save time and effort by eliminating the necessity of having to make a decision each time a recurring situation develops.
4. Facilitate the orderly review of board practices.
5. Aid boards in appraising educational services.
6. Improve board-superintendent relationships.
7. Reduce the pressures of special interest groups.
8. Help in the orientation of new board and staff members.
9. Enable staff members to understand their work in relation to the total activities of the school system.
10. Facilitate the improvement of staff morale by providing uniform and fair treatment.
11. Keep the public and school staff informed of board action.
12. Give lay citizens a better understanding of how they can work with school authorities in building a good school system.

ticular board policy here in Florida that is going to apply in exactly the same way in a different section of the country. Every board must establish its policies on an individual basis. At the present time, however, the NSBA is engaged in efforts to assist in written policy development, through providing over-all guides and sample policies and policy manuals from various districts of the nation. We'll say, "Here are policies that have proved effective in Chicago, or somewhere else," but without suggesting that they would necessarily be equally appropriate in other districts—although they may well be.

Q. How does a school board firm up what its policies are to be? Suppose that you were called in as a consultant by a school district out in Wisconsin. Suppose the board said it hadn't created any written policies. Suppose the members asked you how to get started, what they should do first?

WILLIS: I would say the first thing would be to have someone review the minutes of the board for as many years back as seems material. Minutes are loaded with policy. It is necessary to identify previous board actions where policy has been established. For one thing, this will help the average district to find out how many instances it has of policies that completely contradict each other. That's what happens when they are not organized in written form. As a result, the board spends hours in meetings making "new" policy, or

contradicting itself, when it's not necessary.

Q. Could you give us a specific example of that?

WILLIS: The first thing that comes to my mind is the possibility that the school board one year, says, "We are going to establish a policy to permit the Boy Scouts and the American Legion, and all kinds of civic organizations to use the school buses when they are going to meetings or football games." Now, it permits that for one season. Then, the next year—or maybe two years later—the members establish a new policy that no outside groups shall use the school buses. There might be a reason for the change—a good reason. But, most often, it will be because they don't remember the real reason for the earlier rule. They make a complete about-face on the spur of the moment, without review of the reason for the previous rule. The main point is that, whether they change the rule or not, they're spending a lot of time, usually unnecessarily; they're deciding things on an *ad lib* basis and from scratch, with each new decision.

Q You said the first thing you would advise a school board to do is to have a complete review of its minutes. What would the next step be?

WILLIS: The second thing might be to set up an advisory committee composed of the superintendent,

members of the staff, teachers, parents, members of the PTA's and some leading citizens. You might even have students on that committee. The main point is to get one or more representatives of every group that would come in contact with, or be interested in, the written policies. I'd show these people the results of the study that had been made of the school board minutes. Then, I'd explain what we're trying to do.

Q. Are you proposing that this group should try to write the policies?

WILLIS: No. Remember, this is an *advisory* committee. It wouldn't necessarily even "advise" as a whole group. For example, if the board were considering an adjustment in the transportation policy, there

"School board members are policy makers, not administrators"

WILLIS



might be a special group on the committee that would work with the board on that subject. I'm thinking in terms of a committee composed of 20 or more men and women. The idea is to use their brains and special knowledge, to help the board review and establish policies and to see whether they are based on sound judgment—whether they are practical in their application to the whole community.

SHANNON: It may clear the air to emphasize that while this committee can be extremely helpful on specifics, one of its main purposes is to help define the educational philosophy of the district. Mr. Willis mentioned before that no two districts can, or should, have the same written policies. Needs differ. That's the real significance of local control of education.

Q. Why would basic philosophy change from community to community? Aren't the objectives of education pretty much the same anywhere in the country?

WILLIS: Not really. The variations will come with the differing educational goals, needs and attitudes as they are viewed from community to community. For example, some communities are completely sold on the idea that they should provide kindergartens for pre-school education. Other areas don't think that it is important enough to be willing to pay for it. To take another case, some school districts are trying to define more clearly the precise role of the schools. They believe the schools have too great a burden and that part of it should be shared by the home or by the church. This is what we mean by variations in determining the "philosophy" of education.

SHANNON: This is a most important point. You have citizens in most districts who believe that public education should be provided for all children and all people—without regard to their physical or mental handicaps. Others believe welfare services should take care of the handicapped. Or here's another case—an even greater dilemma: There are many people who believe that the basic purpose of the school is to develop the mentality of each individual to its greatest extent. Others will tell you that developing responsible citizenship is the foremost and

prime responsibility of the school. There's a difference here and it will have a material effect on what courses of study and what curriculum are offered to pupils.

Q How long or detailed should a district's written policies be?

WILLIS: You may remember the answer that Lincoln made to the question of how long a man's legs should be. He said they should be long enough to reach the ground. With Lincoln's comment in mind, I'd say an average written policy booklet might contain 50 pages. I've seen some with only 25 pages and others that run to 150, 200 or more. The important thing is to sub-divide the written document so that it is usable. For example, in the Joint NEA-NSBA Project on developing school board policies, we have these 10 sub-divisions: educational philosophy; school organization; board of education; administration; business and operational procedures; certificated personnel; non-certificated personnel; students; instruction; school-community relations.

Q. Who should do the actual writing? Should it be the board, someone on the advisory committee or someone on the administrative staff?

WILLIS: I think the preferable procedure is for the superintendent, as chief of the administrative staff, to prepare the first draft of the written policies. But it should—and must—be approved by the board of education. This isn't a matter of assigning a chore to the superintendent. He's just in a better position to do the job because he's the man who is going to have to implement policy.

Q. In other words, you're recommending that he write a set of policies that he can live with?

SHANNON: To an extent. Maybe this will make the point clear: the school board might say, "It is our philosophy and our policy that the school buildings are to be made available to community groups." It might add that a nominal sum of \$10 a night be charged for janitorial services, lights and heat. But now consider the problem of the superintendent in implementing that policy. Does the board want to charge a group like the PTA when it uses

the school for a meeting? I doubt it. Yet, this is the sort of thing that the superintendent would have to decide unless it were clarified at the outset. He could do that as a by-product of preparing the policies for the board.

Q. That example suggests very definitive written board policies. Are you suggesting that these kinds of administrative decisions be eliminated, insofar as possible?

SHANNON: I'll try again. Let's take the question of student discipline. How far should the board go in defining discipline policy? Now, in some states, you'll find the issue is handled by state law. It may even set forth what specific actions permit a student to be suspended. But suppose there is no state law. The board might say, "The superintendent shall be responsible for the discipline of students." This would leave it to the superintendent's judgment whether or not a student should be expelled. I think most administrators would want to have the approval of the board, and its support, before expelling a youngster for any long period of time. For short suspensions, this probably would not be true.

Q In other words, you would recommend that the board be quite specific in its written policy when it covers sensitive areas?

WILLIS: That will depend upon the board. I can only express what I think and what we do in our district. In our written policies, we try to state a general rule. When the superintendent and the staff find something that fits clearly with that rule, they go ahead and take care of it. When some new question arises which is not clearly covered by our policies, or if they think we would want to handle it ourselves, they bring the matter to our attention or send the interested parties to see us. Now, by having written policies, we're not endeavoring to eliminate board meetings or to operate the schools from a handbook. What we are trying to do is to give the administrative staff an over-all picture of our intent. We don't want our board meetings to degenerate

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How to estimate the cost of your proposed school

Here's a simple way to get a fairly close idea of what it will cost your district to build a new school.

Editor's note: *The study on which this article is based was made for the Connecticut Public Expenditure Council by Woods and Sibbert, well-known consulting engineers of Cos Cob, Conn. Naturally, the cost factors in New England will differ from those that exist in other regions of the U.S. To provide an "equalization rate" a table of regional costs is on page 50.*

building experience in your area. You will also have a tabulation of the cost of the various components of the school which may suggest certain savings you can make.

The work sheet cannot, of course, enable you to predict the precise cost of the school. That will be determined only when bids are finally submitted by qualified contractors. Nevertheless, the sheet will enable you to arrive at an approximate cost of the school you have in mind to meet the needs of your particular community.

The cost of a school is made up of the cost of the building itself, the fees of architects, the cost of movable equipment not built into the building and the cost of the site and its development.

The amount you will have to pay for your school building is governed by two basic factors:

1. Size, expressed in total number of square feet of area, to the outside of the outside walls.

2. Cost, expressed in number of dollars per square foot of area, required to provide the type of construction and quality of materials you want.

Basically a school building divides into three types of areas: classroom areas, other education areas, and service and structure areas. Some of the units within these areas are relatively standardized, while others offer more latitude in your planning.

A. Classroom areas: These are the

■ ■ ■ No one can really say just when, or how, a school district first becomes aware that it needs a new schoolhouse. But one thing is certain: the first question asked by both the board and community is "How much will it cost?"

An exact answer can't be had until bids are let. But some kind of a working figure is absolutely essential so that school officials can clarify their basic thinking on program, type of structure, and financing.

It was to serve this end that the method and work sheet described in this article were developed.

How to use the work sheet

You can make the necessary computations for your proposed new school on the accompanying work sheet (see page 48). When you have filled out the sheet, you will have an approximation of the gross cost of your proposed school, based on area and cost factors reflecting



WORK SHEET for determining

basic instruction areas, which, in addition to regular classrooms, include kindergartens and—in secondary schools—shops, laboratories, home-making, industrial arts, and other instruction areas as listed under “laboratory areas” on the work sheet section headed “detailed form—for figuring classroom area.”

You have the option of selecting what specialized instructional rooms you wish to include. You also have a choice as to the area per pupil, but you will want to pay special attention to the requirements for qualifying for maximum state aid in your state as shown in columns 1, 2 and 3 of the work sheet (Figures given are for Connecticut.)

If you elect to use the “short form—for figuring classroom area,” you can arrive quickly at an estimate of the area and cost requirements for classrooms, though the estimate will necessarily be less refined than that made by using the “detailed form.” The average square feet per pupil for classrooms of all kinds, as shown in the “short form,” is based upon the substantial uniformity throughout the state of Connecticut in square feet per pupil in regular classrooms, with due allowance for the varying number of square feet per pupil required in laboratory areas.

B. Other education areas: These are special purpose areas, including those for administration, cafeteria and kitchen, gymnasium, auditorium and others as listed under “B. Other education areas” on the work sheet. After filling out the sheet, you will have a fairly accurate indication of what each of these areas will cost. It is usually more economical to build these areas at the outset to take care of the ultimate capacity of the school.

You may elect not to include some of the “other education areas,” combine two or more of them, or vary their size. This is why the work sheet lists each one separately.

C. Service and structure areas: These are areas needed for corridors, general storage, toilet rooms, stairways, mechanical equipment, boiler room and the area occupied by the walls of the building.

The choices you make here as to

	TO GET MAXIMUM STATE AID			PROPOSED FOR YOUR SCHOOL				COMPUTED RESULTS		Home Room Assignment Number of Pupils
	Number Pupils per Room	Min. Square Feet per Pupil	Min. Square Feet per Room	Number Pupils per Room	Square Feet per Pupil	Square Feet per Room	Number of Rooms Needed (Total & Suppl.)	AREA Total Square Feet	COST (Building at \$..... per sq. ft. less \$..... per sq. ft. back of work sheet.)	
	1	2	3	4	5	6	7	8	9	10
DETAILED FORM — FOR FIGURING CLASSROOM AREA										
A. Classroom Areas										
Regular Classrooms — Elementary	30 x 25	=	750	x	..	..	..	..	..	..
Regular Classrooms — Secondary	25 x 25	=	625	x	..	..	..	..	..	..
Kindergarten Rooms	25 x 35	=	875	x	..	..	..	..	..	..
Laboratory Areas										
Arts and Crafts	25 x 35	=	875	x	..	..	..	..	..	..
Bookkeeping	25 x 30	=	750	x	..	..	..	..	..	..
Drafting	25 x 35	=	875	x	..	..	..	..	..	..
English	25 x 35	=	875	x	..	..	..	..	..	..
Industrial Arts — Elementary				x	..	..	..	..	..	..
Industrial Arts — Junior High	25 x 50	=	1250	x	..	..	..	..	..	..
Industrial Arts — Senior High	25 x 75	=	1875	x	..	..	..	..	..	..
Homemaking	25 x 35	=	875	x	..	..	..	..	..	..
Homemaking — All-purpose	25 x 55	=	1375	x	..	..	..	..	..	..
Languages	25 x 35	=	875	x	..	..	..	..	..	..
Mathematics	25 x 35	=	875	x	..	..	..	..	..	..
Office Practice	25 x 30	=	750	x	..	..	..	..	..	..
Retailing	25 x 30	=	750	x	..	..	..	..	..	..
Social Studies	25 x 35	=	875	x	..	..	..	..	..	..
Science	25 x 35	=	875	x	..	..	..	..	..	..
Total A (Detailed Form)										

areas and approximate cost of schools

SHORT FORM - FOR FIGURING CLASSROOM AREA	SQUARE FEET PER PUPIL				Proposed For Your School			
	Experience Average		Secondary	Proposed For Your School				
	Elementary	11						
A. Classroom Areas (All kinds)								
Multiply number of pupils (initial building) by sq. ft. per pupil you propose in column 13. Enter product in column 8.	11	12	13					
	30	35	.....				
Total A (Short Form)								
B. Other Education Areas								
Administration	2.5	3.0	.....				
Cafeteria and Kitchen (Capacity: one third student body)	5.0	5.0	.....				
Gymnasium and Locker Space	6.0	10.0	.....				
Auditorium and Stage (Capacity: one half student body)	7.0	8.0	.....				
Multi-purpose room and stage	5.0	5.0	.....				
Library	1.5	2.0	.....				
Music	1.0	1.5	.....				
Educational Storage			.....				
							
Total B								
Total A + B								
C. Service and Structure Areas								
(Corridors, toilets, boiler room, building walls, etc.)								
Multiply "Total A + B" area by factor you propose in column 13, to get area of "C" for column 8.	Elementary	Secondary	Proposed For Your School					
	.35	.45	.....				
Total C								
TOTAL BUILDING A + B + C								
D. Cost of Professional Fees and Equipment								
Multiply total building cost by factor you propose in column 13, to get cost of "D" for column 9.	.11	.13	.....				
E. Cost of Site								
F. Cost of Development								
TOTAL ESTIMATED COST OF PROJECT A + B + C + D + E + F								

the economical use of space will have a major effect on the cost of your school. A recent study indicates that the amount of space devoted to "service and structure areas" varies from 35% to 115% of the area for classrooms and other educational purposes. An efficient plan can produce real savings.

The quality of the building

The quality of the building determines the cost per square foot. There are hundreds of individual items entering into this cost, and there is no method of predicting it precisely in advance of the contractor's bid, even if you know the particular kind of each item you plan to use. Bids, even when based on careful final plans and specifications, may vary as much as 10% between competent contractors.

It is possible, however, to approximate the unit cost per square foot. Based on the average cost of the schools built in your area in recent years, the anticipated cost range per square foot of the average school in 1959 must be entered on

the work sheet (Column 9). On page 51 you will find a list of some of the important characteristics found in the construction of average cost schools as well as a definition, in terms of cost, of expensive, average and below-average schools.

Professional fees and equipment

The fees of architects are usually figured as a percentage of the cost of the building and any other element of the project for which they are engaged. However, the fees are on a sliding scale of percentages, which makes it difficult for you to use that basis in these computations.

The cost of equipment for your school depends, of course, on the quantity and quality demanded.

You may arrive at a sufficiently workable figure, for the purposes of your work sheet estimate, if you will compute the combined cost of professional fees and equipment by multiplying the total building cost by a factor of .11 for elementary and .13 for secondary schools as shown on the work sheet.

This includes, in addition to the cost of the land itself, the cost of roads, sewer system, water and electric supply, and the athletic or playing fields. The character of the site can also influence the cost of the building if large quantities of rock must be excavated or if expensive foundations are necessary because of poor soil bearing. Low-cost land can prove expensive if development expenditures are high.

Neither the cost of the land nor the cost of its development can be predicted by formula. Both depend upon local conditions. Since the two together are a sizable investment, land should not be purchased without good professional advice from one or more of the following sources:

1. Your state department of education, as to adequacy and the problems involved.
2. A site planning consultant, or a civil engineer familiar with site problems and costs.
3. Your architect.
4. Local town departments who may know about sites.

WHAT'S THE COST INDEX FOR YOUR AREA ?

The Connecticut costs shown in this article were based on figures for 1956-1957.

To compute the cost in your region, we have reprinted below the correction factors provided by Engelhardt, Engelhardt, Leggett, and Cornell, school consultants, in an article written for SCHOOL MANAGEMENT ("How you can compare school building costs," Sept. '58).

These correction factors are designed to equalize the differences in costs caused by year of construction, region and local conditions. The three factors are to be selected from those given above, according to the facts in each case, and multiplied together. The results will be an index number. The actual building construction cost is then to be divided by the index, to provide an "adjusted" cost factor which can be fairly compared with other "adjusted" costs.

Unless the adjustment is made, any comparisons would not take into account changes in construction costs—which, though they have not risen as much for schools as for other types of buildings, have shown steady increases since World War II. Costs also vary according to regions—they are generally lower in many southern states, for instance, than in the northern Atlantic seaboard. The immediate locality also affects the costs: in a big city where labor, for example, is highly unionized, costs are usually at maximum levels.

The factors tabulated are derived from reliable sources, with full permission, and from the extensive experience of Engelhardt, Engelhardt, Leggett and Cornell, with school construction in most of the states of the United States. Some slight revisions have recently been made to bring the figures up to date and to take advantage of the statistical checking and rechecking which is

constantly in progress. Hence, the figures here given supersede any previously published.

External influences on construction costs represented by three indices.

*TIME	INDEX	**REGION	INDEX
1949	1.00	North New England	1.06
1950	1.07	Northeast	1.33
1951	1.14	Middle East	.83
1952	1.18	Southeast	.66
1953	1.23	Great Lakes	1.15
1954	1.27	North Central	1.00
1955	1.33	South Central	.86
1956	1.395	West	.93
1957	1.47	Pacific	1.22
1958 (April)	1.47		

No. New England: Me., N. H., Vt.; **Northeast:** Mass., Conn., R. I., N. Y., N. J., Pa., Del.; **Middle East:** Md., D. C., Va., W. Va., Ky., N. C.; **Southeast:** S. C., Tenn., Ga., Ala., Miss., Fla.; **Great Lakes:** Ohio, Mich., Wisc., Ind., Ill.; **North Central:** Minn., N. Dak., S. Dak., Ia., Nebr., Mo., Kan.; **South Central:** Ark., Okla., La., Tex.; **West:** Mont., Id., Wyo., Colo., Utah, N. Mex., Ariz.; **Pacific:** Wash., Ore., Nev., Calif.

TYPE OF COMMUNITY	INDEX	COMPOSITE INDEX
Rural	.90	Times x Region x Type
Suburban	1.00	
Metropolitan	1.10	

* Time index is Engineering News-Record Building Cost Index.

** Regional indices are developed from average square foot costs of elementary and secondary schools from July 1951 to Sept. 1952. Median average: North Central region.

SOME GUIDELINES

Here's how to determine the type of school your district wants and can afford to build

High Average \$20.60: The highest cost "fifth" of the schools built in Connecticut in 1956 and 1957 would cost approximately \$20.60 per square foot when adjusted to anticipated 1959 cost levels.

Mid-range \$16.70: Average cost Connecticut schools, built in 1956 and 1957 and having substantially the characteristics shown in the table below, would cost approximately \$16.70 per square foot when adjusted to anticipated 1959 cost levels.

Low Average \$13.20: The lowest cost "fifth" of the schools built in Connecticut during the same period would cost approximately \$13.20 per square foot when adjusted to anticipated 1959 cost levels.

Analysis of actual school building costs shows that the variation in cost per square foot as between regular classrooms, laboratories, and other areas of a school building are negligible for the purposes of making the computations on this work sheet.

When you have selected a cost per square foot for your proposed school—using as a guide, if you wish, the cost ranges listed above—the per square foot cost figure should be entered at the top of column 9 (see page 48).

Some characteristics found in average cost Connecticut schools

Excavation: Small amount of rock.

Structure: Steel, semi-fireproof, slab on grade.

Roof: Fireproof deck, insulation, 20 year bonded roof, no skylights or bubbles.

Exterior Walls: Brick, masonry, or sandwich panels and glass, some architectural stone trim.

Windows: Galvanized steel, projected or double hung.

Doors: Entrances, stainless steel or aluminum, other doors, wood.

Interior Partitions: Unplastered, block, or painted.

Floors: Asphalt tile, $\frac{1}{8}$ " on slab on grade.

Ceilings: Acoustical fibre tile or exposed acoustical roof deck.

Plumbing: Copper tubing, floor type fixtures.

Heating and Ventilating: Steam or hot water, direct radiation or unit ventilators, mechanical exhaust, individual room controls.

Electrical: Fluorescent lights, simple public address system, fire detectors, simple stage lighting, battery emergency lights as required.

Kitchen Equipment: Stainless steel, iron ranges and ovens.



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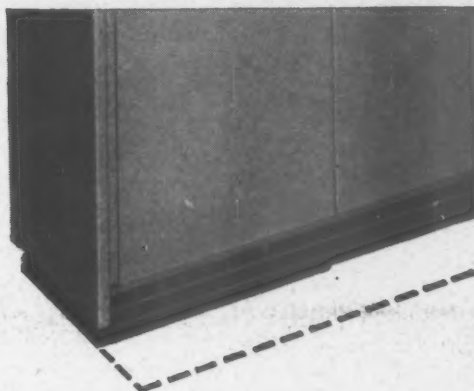
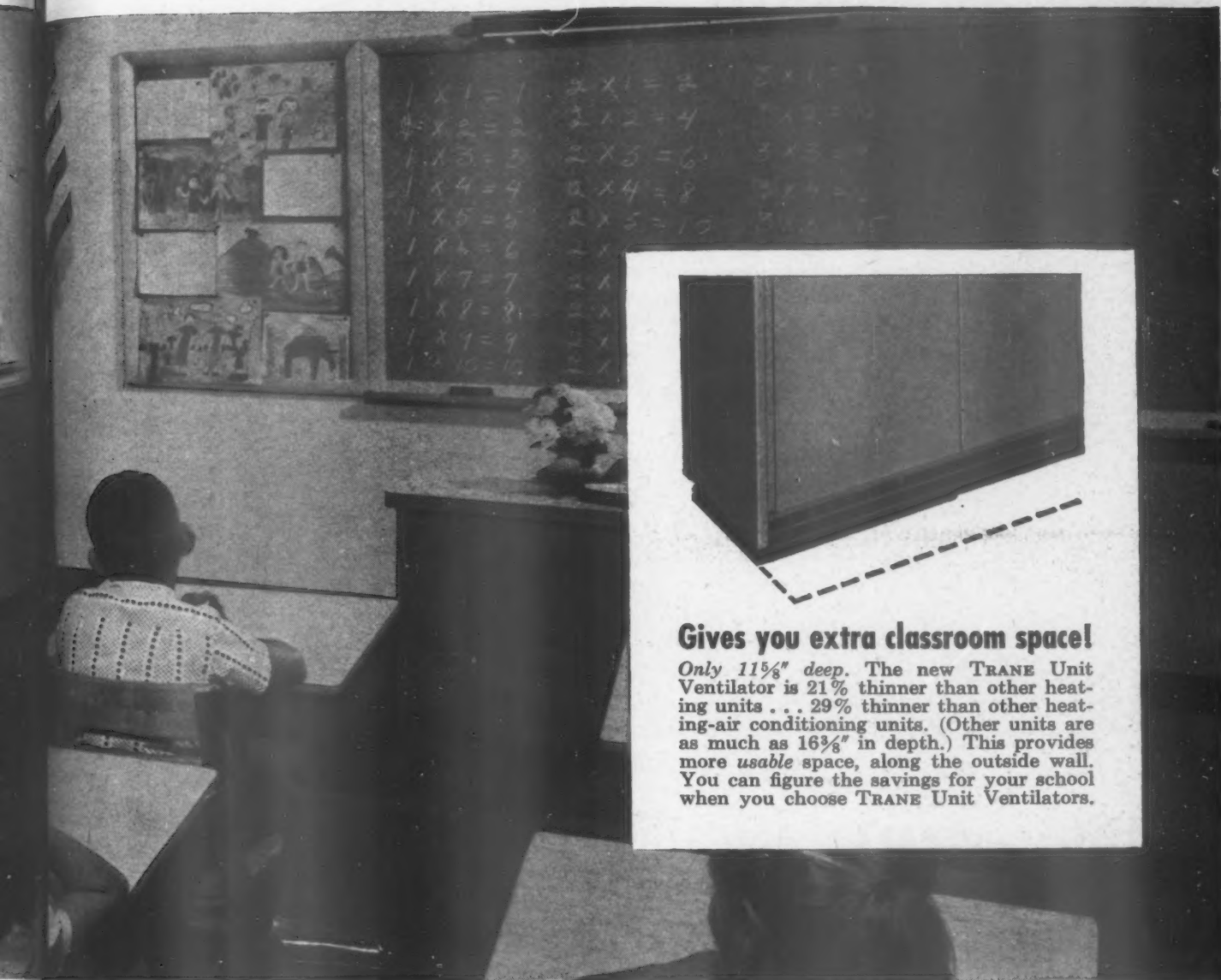
Only 11 $\frac{5}{8}$ inches deep, TRANE Unit Ventilators provide extra usable classroom space.

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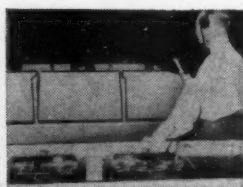
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A way out when there's smoke in the halls

Experts state that it is hazardous to depend on corridors for escape from fire. Here's how one school is providing an alternate way to leave a burning building.

■ ■ ■ A Los Angeles school burned down last summer to the cheers of thousands. The fire, in an abandoned building, was set by experts and used to learn more about the causes of, and methods for preventing, death in school fires.

Three conclusions, as reported in the *Journal of American Insurance*, stood out: 1) Schools need smoke detecting devices; 2) sprinklers providing total coverage are necessary; and 3) "it is too hazardous to depend on corridor evacuation of students; revised exit-thinking is needed to provide more outside-the-building escapes, possibly in the form of stairs from continuous balconies."

In Waldwick, N. J., this thought struck home. Although all of the Waldwick schools are "fire-proof," several of the two-story structures contain long hallways with exits at only one end. Suppose a fire did strike. How would students get out?

"The idea of fire escapes doesn't satisfy me," Superintendent John J. Finnessy told the school board. "First, they're ugly. More impor-

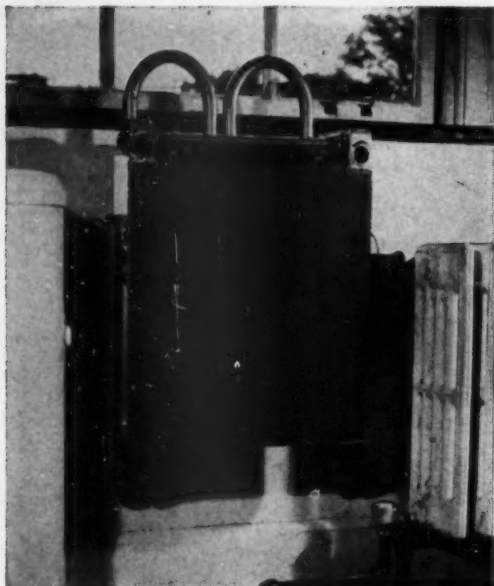
tant, they're dangerous; girls, especially, dislike them and they're an open invitation to vandalism.

"Escape chutes have been tried and found too dangerous. Students end up piling into one another, much as they do in fun on a slide. But getting away from a fire is not fun. Continuous balconies offer the same disadvantages as fire escapes.

"Frankly, I didn't have a solution," Finnessy says now. "I only knew that we needed one. For example, at the Prospect Street School, where my offices are located, there are 434 students in the sixth, seventh and eighth grades in classrooms on the second floor. There are two stairwells at either end of a short center corridor, but there are two wing corridors of about 150 feet each, with no supplementary stairwells at either of the far ends.

"Experience, and science, has proven that smoke tends to gather in the stairwells, making them a hazardous exit at best. But what would happen if a fire started quickly when there were many children





1.

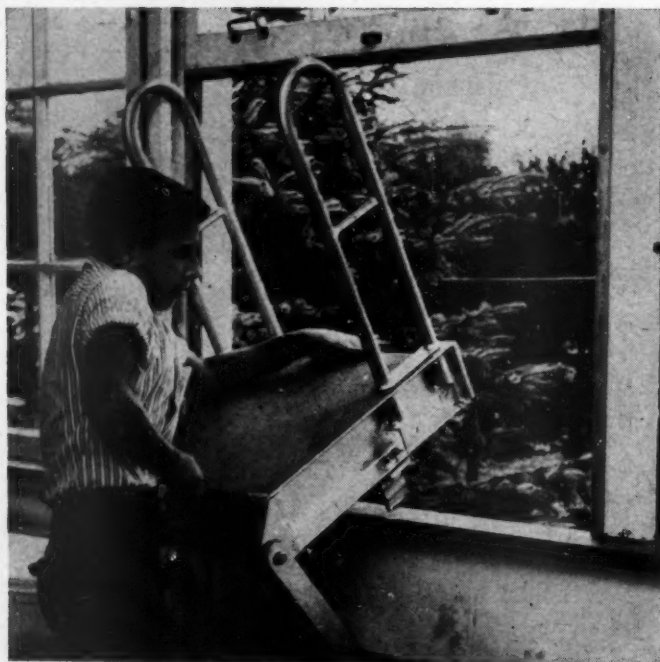
"We were not looking for a substitute for

1. Standing ready

Maintenance free ladder, fastened inconspicuously beneath one window in room, protrudes just six inches. Two bolts lock it in place and chain ladder is stored inside box. Two safety rails (top) are also stored in box and can be easily affixed to platform.

2. Out it goes

Almost any 11-year-old can lift the platform, with rails now in place, over the window sill (see below, at left). Two students together can handle it with ease. Chain ladder, still in box, is simply pushed through open end when platform is in place. Note platform's non-skid surface.



2.



3.

down at the far end of these corridors? It isn't a pretty thought."

Finnessy put this question to his school board. An account of it, carried in a local paper, reached the eyes of a representative of a firm that made escape ladders for ships. Says Finnessy: "He suggested that we install aluminum escape ladders in each room. This was to be a permanent, maintenance free installation that could be used easily by any student in an emergency.

Not a substitute

"We were not looking for a substitute for an orderly exit through the halls and down the stairs. We were looking for an *emergency* alternate. This escape ladder idea seemed to fill the bill."

Encouraged by Finnessy's acceptance of the idea, the firm, Marryatt, Lane & Co., worked to perfect a ladder that would meet all safety, usability and cost standards. The result (see pictures) was installed in Waldwick's Prospect Street School last fall.

Waldwick's escape ladders are housed in inconspicuous boxes that become platforms when the ladders are in use. These boxes can be placed under a window in every room above the first floor. Students go out over the window sills and then down the escape ladders to safety.

"We have heard many objections to these ladders already," says Superintendent Finnessy. "But most come from people who have never

seen them. Our fire department, our parents and the students think they're wonderful. We have a group of students ready to demonstrate them at the sound of an alarm—and there are girls in that group of volunteers."

Training needed

Students obviously cannot be expected to go out the windows with no training. This is provided in Waldwick's physical education classes. All students with classrooms on the upper floor are given practice in going down the ladder and in setting up the fire escapes. "It's much the same as rope climbing—an activity we've always taught in gym classes," Finnessy says.

"We feel that we have provided

for an orderly exit through the halls. We wanted an emergency alternate."

3. Fastened below

Ladder hooks easily into prepared brace on ground below window (opposite page). First one down can fasten it or, as in Waldwick, administrative personnel housed on ground floor can be assigned the task. Administrators take charge of students on ground.



4.

one more safety device for our students, and done it at a low cost—less than \$200 a room," the superintendent states. "We have tested the ladders. We have taught our students how to use them. We hope it will never be necessary to put them to use, but if it is, we're ready.

"I'll never forget the pictures of those poor children in that Chicago school, standing at the windows and screaming because they couldn't get down. If we ever have a fire, we'll try to leave through the hallways and down the stairwells. But at least I can rest a little easier now in the knowledge that we have provided a way out for our students when there's smoke in the school halls." **End**

JANUARY 1960

4. Up and over

Students have little difficulty getting up and over the window sill. Step is built into wall to help them up and safety handles re-assure when it comes time to step onto platform. Students turn around on platform, holding onto rails, go down the ladder backwards.

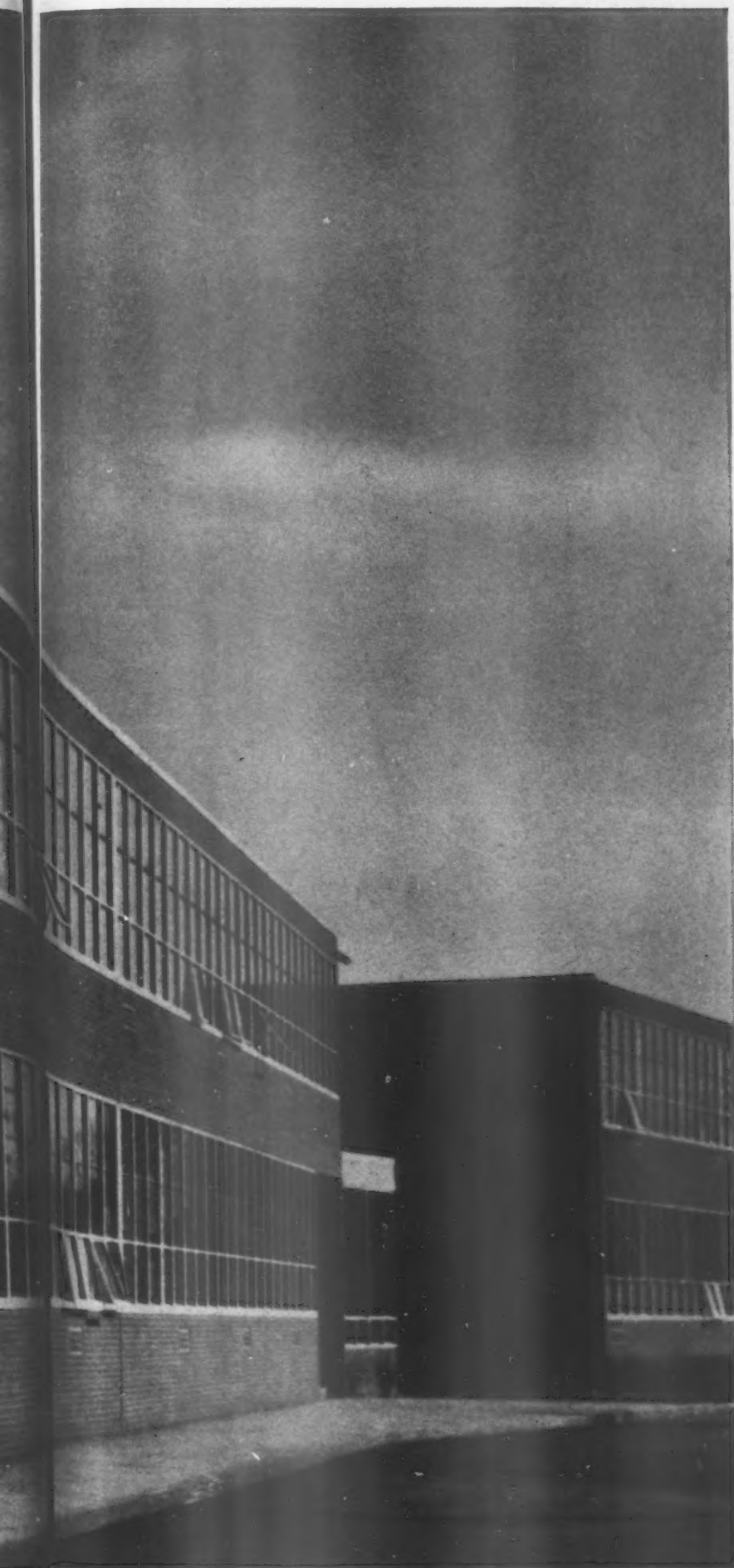
5. Safe departure

Students leave the room at three-second intervals, have no trouble once they start down. Thirty students and teacher can be evacuated from room in less than three minutes. Ladders also serve to speed firemen to upper floors when rooms are empty.

5.







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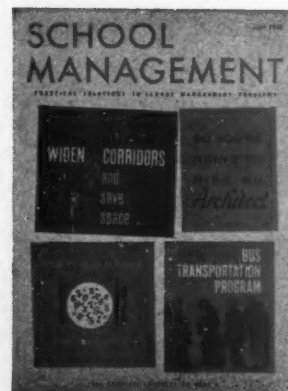
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language for *all* members of the school team.



EXPLORATIONS

IN

EDUCATION

**A report on two kinds of
teaching machines:**

**An automated system using
feedback**

**Self-correcting English
homework**

The following case histories were submitted by readers in districts where schools are better utilizing staff, space or time. They are presented as part of a joint project with the Teacher Education Committee of the Massachusetts Association of School Committees.

Editor's note: From its first appearance (*SM*, Aug. '58), this section has reported the efforts of schools to improve education and increase staff utilization. Quite often, however, much exploratory work is conducted in places other than our public schools. From time to time, when such investigations have immediate, practical applications

at the local school level, they will be reported here, too.

The current interest in teaching machines is a case in point. While there is no history of their extensive use in any one school system, curiosity about them is widespread. Investigations into the feasibility of using such machines in instructional programs are currently

underway in many schools and universities and in industry. Much of the recent "Invitational Conference on Testing Problems," sponsored by Educational Testing Service was devoted to the subject of machine teaching. The following report is based upon material presented and discussed at that meeting.

AUTOMATED TEACHING SYSTEM USES FEEDBACK PRINCIPLE

AN AUTOMATED METHOD of individually used, instructorless teaching was outlined at the conference by Norman A. Crowder, director of the training systems department, Western Design Div., U. S. Industries. He described his automatic system as one which controls the communication process by the use of feedback. With this method, the student's response to a given question performs two functions. It indicates whether or not a portion of instruction has been communicated; and it allows the teaching device to take appropriate action if communication has proved ineffective.

This feedback principle, according to Crowder, distinguishes his method from most other automatic teaching systems, notably the one being developed at Harvard by B. F. Skinner.

In Crowder's view, Skinner has set up a carefully controlled situation in which the student is conditioned to give appropriate responses. It provides the student with the correct answer to a question immediately after he has answered it himself. If he gives the right answer, he goes on to the next question. If he gives the wrong answer, he will probably answer correctly the second time around—when he again encounters those questions which stumped him previously. This imme-

mediate reinforcement of the emitted response is basic to the Skinner teaching machine.

But, according to Crowder, "If an error has occurred, the problem is not solved by revealing the right response to the student, as the failure (of communication) occurred before the response was emitted. What is required, in the case of an error, therefore, is to repeat or revise the communication process."

Here, then, is the way Crowder's system works. The student is given instruction in small, logical units and is immediately tested on each unit. His response to the test controls the material he sees next. If he answers the question correctly, he is automatically given the next information unit and the next question. If he answers the question incorrectly, the preceding information is reviewed, his error is explained and he is retested. Multiple-choice questions are used, with a different set of correctional materials provided for each alternative given. Thus, all the alternatives are built into the programmed material itself.

This intrinsically programmed automatic tutoring device in its simplest form resembles a "scrambled book." The student finds the first unit of information and the first multiple-choice question on page one of the book. Each of the alternative answers to the question asked is identified by a different page number. If the student chooses the correct answer, he will find the next concept to be mastered on the page num-

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ber given in front of that answer. If he chooses an incorrect answer, the page he is referred to will explain why his answer was wrong and will direct him back to the original question to try again. Under this method the student can only progress through the book by eventually choosing the right answer to each question.

If a record of the student's progress is desired, the automatic tutoring materials can be handled in a special automatic microfilm projector instead of the scrambled book. This projector not only "turns the pages" as the student commands, it can retain a complete record of his progress through the lessons as well. With this record, the tutoring materials can be refined on the basis of experience. And, with such an automatic tutoring device, an unprecedented degree of administrative control of the instructional program becomes possible.

The teaching machine, says Crowder, is not meant to replace the instructor—the human teacher is still the best means of educating youngsters. Unfortunately, he is not always available. This is where the machine can step in to provide instruction for all.

Crowder's teaching machine method has been employed for a number of subjects: trouble-shooting of complex electronic equipment, law, trigonometry, contract bridge and number theory. "The method," he thinks, "seems best adapted to materials which can be organized logically and coherently."

SELF-CORRECTING ENGLISH HOMEWORK

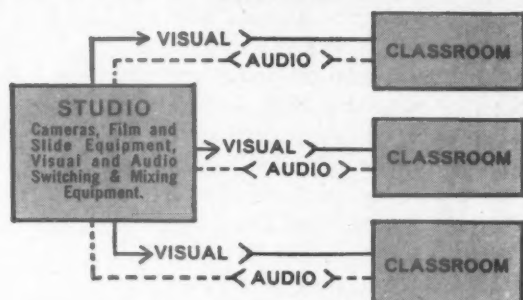
THE AUTOMATED TEACHING method described above may work well for highly integrated subjects such as mathematics, but what of looser subject areas: English for example? Paul B. Diederich, research associate, Educational Testing Service, provided an answer at the ETS conference with his description of self-correcting English homework.

His "teaching machine" consists of an exercise in the form of a test. Following class discussion of a poem, for example, students are given the exercise to work out at home. The purpose of this self-correcting lesson is to show students *how* to read a difficult poem, not to test how well they know it.

"The objective," says Diederich, "is not merely to understand this particular poem but to pick up a method of dealing with poems that are a bit difficult to understand at first sight."

The exercise (which can be a simple mimeographed or typewritten sheet) presents multiple-choice answers to a series of questions and statements about the poem being studied. The student answers the first item—after covering everything below it with another sheet of paper—by writing the number of the appropriate choice in the parentheses at the end of the line. Then he moves his cover sheet down to item two. The number given in parentheses at the beginning of the second item is the correct answer to item one. If his answer to item one does not correspond to this key, the student marks his first answer with some symbol to indicate that he got it wrong. He goes through the entire exercise in this fashion. At the end of the lesson, he re-studies the wrong items and, if he still cannot

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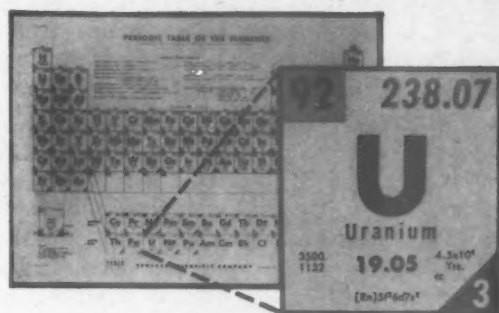


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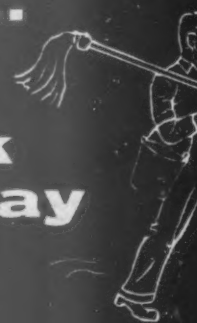
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see why he was incorrect, he makes a note to bring them up in class discussion the next day.

At the next class session, the students are given a short test based upon the material studied in the preceding day's self-correcting homework assignment. This test does *not* reveal the intended answers and is given in the same way as any standard classroom test.

When the students finish the test, their papers are redistributed so that no student gets back his own. The teacher then reads the intended answers aloud and the students score the test papers. Each student raises his hand whenever he encounters a wrong answer on the paper he is scoring. The teacher notes which questions were missed by more than 10% of the class and discusses these, usually by asking a student with a different answer to defend it before the class.

Students get no credit for their homework exercise; only the test results are recorded. No point covered in the exercise ever appears on the test in the same words. So students cannot simply memorize phrases. They must grasp the ideas presented and apply them to new material given in the test. Cheating on the homework assignment thus becomes pointless. "Doing the exercises honestly," says Diederich, "is simply the quickest, easiest and most interesting way to prepare for the tests."

His teaching method, he says, differs from that of Skinner and Crowder in several respects. First, no machinery or special equipment is needed since the exercises can be printed in booklets or with duplicating machines and the problem of cheating is overcome by separately printed tests.

Second, Diederich doesn't feel—as Crowder does—that an explanation of each and every wrong answer is necessary. In a field like English, the same problem is bound to re-occur in other forms and contexts at

which time it will probably be covered adequately.

Third, says Diederich, "We do not think it necessary to convey information by means of 'cues' or 'prompts'" as is the case in Skinner's teaching method. Information is presented by means of a literary text or a class discussion and comprehension is gauged through the homework exercises. The ideas which give trouble in each class are determined through tests and then the teacher is used to discuss these ideas further with those who do not understand them. "All of our exercises are back-stopped by a teacher," says Diederich. "Hence they do not have to be a self-contained system that can get along without a teacher."

The method outlined by Diederich is designed to help relieve the current, increasing strain on teachers in crowded schools. Under this system it is hoped that every unteachable class of 40 or more students will be broken into two teachable sections. Each section will meet with the English teacher only twice a week; once for a discussion of the books they have read in common, once for a discussion of student papers. On the other two days each section will attend a large "free reading room," run by college-educated housewives with a lively interest in books and young people. On the fifth day of the week both sections will report to a room for a test on the self-correcting homework assigned for that week and a class discussion of difficult material—also handled by college-educated housewives. This leaves the English teacher free one day a week to meet with students who need special help.

Diederich admits that the program he outlines is a drastic one. But estimates for 1965 indicate that most high school English teachers will be instructing 200 students each day. "All contact of teachers with individual students," he says, "is likely to be lost unless we do something drastic about it."

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Sealed playground surfaces preserve interior floors

Schoolmen in Portland, Ore., went outdoors for a solution to the problem of rapidly-wearing floors in their elementary school buildings.

■ ■ ■ What do school playgrounds have to do with the upkeep of inside floors? A great deal, as school officials of Portland, Ore.'s, Multnomah District #1 discovered when they sought reasons for the excessive wear of the floors in their schools.

The root of their trouble, they found, lay in their school playgrounds. Rapidly oxidizing asphaltic concrete surfaces were causing loosened sand and sharp, granular material to be tracked into the schools on the students' shoes. These abrasive particles were literally grinding away the hardwood and linoleum, asphalt and vinyl tile floors of classrooms and corridors. The obvious solution to the problem: seal the play area surfaces.

First, the school board sought an appropriate material which would provide a smooth, tight, non-abrasive seal. They found it in a product of American Bitumuls & Asphalt Co., an asphalt-based, factory-compound material with mineral fillers. Then the district developed a piece-meal program, permitting the resurfacing of critical areas in many playgrounds instead of re-doing complete play areas in only a few locations.

Work was scheduled in Portland on the basis of covering the oldest

and roughest surfaces first. The material was placed as extensively as possible near school entrances and exits and around playground equipment. In the past two summers, a total of some one million square feet (cost: about 7¢ per square foot) have been resurfaced this way and current plans call for an extension

of the program for at least another four years.

Result: excessive wear on interior school floors has been eliminated. **Beneficial side effect:** children using outdoor play equipment suffer fewer abrasive burns of knees, hands and elbows when they fall on the new surface. **End**



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Handle pupil transportation with punched card methods

How Plainview, N. Y., developed a bus pass system as a by-product of its data-processing equipment.

By CHARLES RHEIN

Machine Records Supervisor, Plainview, N. Y.

Central School District #4 - Plainview, N. Y.

OF

IS AUTHORIZED TO RIDE TO AND FROM SCHOOL

BUS NO.	TRIP IN	TRIP OUT	19	To 19	PASS NO.
---------	---------	----------	----	-------	----------

1. This pass is a privilege and will be honored only if properly used by authorized user.
2. This pass must be presented to the Bus Driver as passenger boards bus.
3. This pass may be revoked for cause.

Central School District #4 - Plainview, N. Y.

OF

IS AUTHORIZED TO RIDE TO AND FROM SCHOOL

BUS NO.	TRIP IN	TRIP OUT	19	To 19	PASS NO.
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1. This pass is a privilege and will be honored only if properly used by authorized user.
2. This pass must be presented to the Bus Driver as passenger boards bus.
3. This pass may be revoked for cause.

Single-ply continuous form is run off on IBM machine as by-product of other applications. Form provides Plainview with exact control of students riding buses and station wagons.

■ ■ ■ School officials all over the country are concerned about the increasing amount of paper work now required to operate a school district. And one of their main reasons for concern is the growing amount of time teachers must spend in such nonacademic functions as record keeping.

In Plainview, N. Y., we have found that modern data-processing equipment and business forms offer one solution to this problem.

Our district is composed of 10 schools with an enrollment of 7,300 students. The student registration, scheduling, census, attendance re-

Laminated pass is given to students who fold to wallet size along dotted line.

Central School District #4 - Plainview, N. Y.

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1. This pass is a privilege and will be honored only if properly used by authorized user.
2. This pass must be presented to the Bus Driver as passenger boards bus.
3. This pass may be revoked for cause.

ports, and class listings are only a few of the applications we have converted to automation.

In any business the cost of such equipment can only be justified by the amount of time saved and error-free reports produced. In addition, the greater the number of applications converted to this equipment, the greater the economy.

For this reason, we have not been satisfied to utilize this equipment only for the more common applications. We are constantly on the lookout for hidden applications—those that will make the data-processing equipment more profitable to the schools with a consequent savings to the taxpayer. One such use now provides us with exact control and regulation of students riding school buses.

Control of pupil transportation

Our school district operates 26 buses and eight station wagons. In the past we have had no accurate record of students using them and as a result our transportation service has not been efficient. Some buses were overcrowded when others were half-empty. Students who should have walked to school were riding while some who were entitled to ride, walked. This looked like a fitting area for automation.

With the help of a representative of UARCO, Inc., manufacturers and designers of business forms, we developed a single copy, control punched form that would serve as a bus pass and that could be produced as a by-product of other work we were doing on computing machines (see illustration).

These passes are prepared on an IBM 403 accounting machine from the same master student punched cards used in other tabulated reports. Master cards contain the student's name, address, and other constant information. Using these cards, the IBM equipment automatically assigns the student to the school nearest his home, and to the proper bus serving that school. After the pass has been processed on the tabulating equipment it contains the student's name, the school he is attending, bus number, bus schedule, semester for which the pass is issued, and pass number.

When all the forms have been run, they are separated into individual passes. When this process is

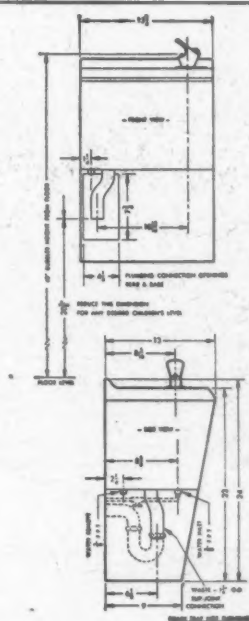
complete the forms are laminated in plastic for durability. A partial perforation located in the center of the pass permits students to fold them to wallet size. Conditions under which the passes are issued are printed beneath the fold.

An important feature of this system is use of colored paper. Most of our passes are printed on white stock, but some are printed on buff. As in any large school district, we have a number of handicapped students. The buff colored stock is used for their passes. This indicates, in a

subtle way, that the holder is handicapped and may require some help.

The benefits of this one minor system are an indication of the value of the use of data-processing equipment. All students are now assigned to the correct bus. This distributes the load and prevents overcrowding. No paperwork is required on the part of the teacher and as the data-processing equipment is being utilized more, the operating cost for our system is lowered. **End**

For more information on bus pass process, circle number 855 on the Reader Service Card.



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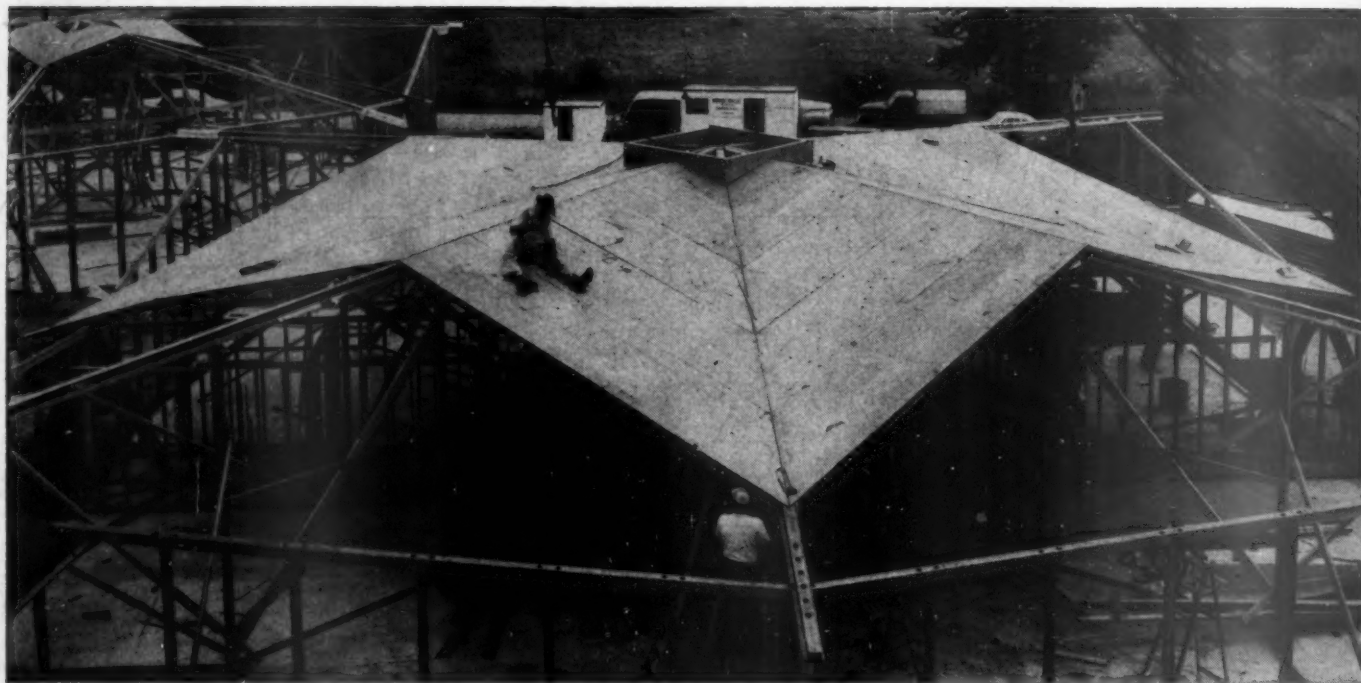
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Prefab roofs cut labor costs



Schools in Tacoma, Wash., are experimenting with unique roof designs and materials to reduce the labor costs required for building construction.

■ ■ ■ Tacoma, Wash., has arrested the rising cost of school construction by turning to prefabricated building components. Through the increased use of factory-assembled units, prepared away from the construction site, it has been able to reduce labor costs.

That's why Tacoma adopted a new design idea—the folded plate roof—for a recent four-unit, campus plan addition to its Northeast Elementary School.

The conventional folded plate roof looks like a series of giant corrugations in a straight line. But at the Tacoma school, each roof consists of eight triangular plates converging at the center, giving a square-sided, three-dimensional butterfly effect (*see pictures*). A ridge formed by the edges of two plates leaning against each other runs from the center of the building to each corner; a valley runs out to the midpoint of each side. Support is provided by four A-frame steel

anchors, each resting on a 1,500-pound concrete pad buried in the ground. With the roof panels resting on glue-laminated beams and the beams on the A-frames, all the stress is on these anchors.

The roof plates are the basic prefabricated components. Each consists of stressed skin sandwich panels of fir plywood, incorporating insulation. A typical panel has $\frac{5}{8}$ " exterior fir plywood for its top skin and $\frac{3}{8}$ " interior for the bottom skin, with two by four lumber framing around the perimeter. These panels save hours of construction time on the job because each one provides roof and ceiling surfaces in one unit.

Another advantage of the folded plate roof: no trusses or rafters are needed. Two large, flat, usually rectangular surfaces or "plates" lean against and support each other. These units can be connected in series to span distances up to 80 or 100 feet without interior supports.

The four 65-foot-square units at



Steel A-frame at midpoints of side walls provides main support for roof.

Northeast Elementary are of identical design, except for one with a higher roofline. The identical design and the folded plate roof system made the use of standardized prefabricated building components possible. As a result, the contract cost for the new construction was \$10.83 per square foot, several dollars below average cost in the area.

One of the four units contains administrative offices, teachers' workroom, two 32-foot classrooms, a library and a health room. Another unit is devoted to four classrooms. The third—the play shed—has no partitions. The fourth unit contains a large multi-purpose room with a portable stage and a kitchen. When an existing old building on the site is removed, a fifth identical unit will be erected in its place.

Each of the buildings has a square plastic-topped skylight in the center of its roof. Exterior walls of all four units are prefabricated fir plywood panels, with glass set in between the top of the panel and the slanting roof line. The buildings are connected by covered walkways with plastic inserts, providing weather protection with light transmission, and sheltering wind screens enclose the outdoor corridors.

The city of Tacoma has continued to experiment with school design and modern, adaptable materials in its Nell Hoyt Elementary School. Here a cluster of four classrooms is connected by a covered walkway to a multi-purpose building. The latter exhibits a folded plate roof with a sawtooth silhouette. Each classroom building, however, is topped by a domical plywood roof.

This is a one-piece, shop-fabricated, clear-span roof component incorporating lighting and structural elements in a single unit that can be repeated many times. Because of its partly experimental nature, much of the cost of the unusual roof construction was underwritten by the Douglas Fir Plywood Assn.

From a cost standpoint, this particular roof design has not proved practical, but the labor savings in construction have been significant. This kind of roof eventually should be able to produce substantial savings since it involves building with large component parts prepared off the site instead of with little pieces assembled on the job.

End



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How talented youngsters can be challenged

Here's how one Houston, Tex., school is stimulating its outstanding students in the elementary grades without straining the administrative staff.

■ ■ ■ Faced with a relatively large number of fast learners in each grade at the Memorial Drive Elementary School, Houston, Tex., Principal Jack McClendon hit upon the idea of an Explorers Club to challenge and stimulate his outstanding students. The clubs explore potential career areas in which students have expressed an interest. In the first year of operation, novelists, diplomats, scientists, musicologists, archeologists and businessmen visited the clubs, which are limited to the top 25 youngsters in the third, fourth, fifth and sixth grades.

"Through the Explorers Clubs," explains McClendon, "we challenge children of exceptional talent, encouraging them in their interest areas. This is based upon the principle that if we subject children to people who are already successful, let them talk and let the children ask questions, it gives them scope."

As McClendon conducts the program it not only stimulates the minds of the children but also teaches them how to interview an adult, conduct a meeting without adult interference and exercise in public the manners learned in private.

McClendon planned, at first, to limit the club idea to one combined group of fifth- and sixth-grade explorers. When he found there were enough children capable of coping with the stimulation and responsibilities to organize two separate clubs, he did so. The next year participation was extended to the third and fourth grades as well.

Selection of members

Here is the way the clubs work: The teachers and Principal McClendon, acting as a committee, nominate potential members. They

Nine-year-old Richard Ruckman, below, learns by doing. Here he interviews neighbor Walter Knips to ask him to give an address before the fourth grade Explorers Club.



Modern music was discussed by Explorers Club guest Arthur Hall, chairman, music department, Rice Institute. He compares cacaphony, polytonality to "classic" sounds.



choose the top 25 students in each grade (out of about 90 this past year) on the basis of mental ability, achievement, teacher evaluation, and ability to take direction. McClendon ruled that "the troublesome ones and those who infringe on the rules are out."

Two teachers on McClendon's club committee ask each potential student member to list five areas of interest. From these lists the teachers select those areas of interest to the largest portion of the membership. Teaching was not among the top choices the first year, McClendon reports. But it ranked high the second year, so he called in a teacher from another school to be the guest for that meeting.

At a meeting of the parents, McClendon discusses the aims of the Explorers Clubs, tells how the members were selected, and asks the parents to nominate guests from the local and surrounding community who could stimulate the children in the fields in which they had expressed interest.

The students handle the arrangements themselves. Through a little advance planning, but without doing the contacting themselves, the teachers select a suitable child to call upon each potential speaker.

The chairman of the day—the student who contacted the guest—introduces the guest and conducts the meeting. Parents are not permitted. McClendon believes the children act naturally, and get more out of the experience—particularly the question-and-answer portion—without parents and other adults around. The teacher-sponsor of the club makes herself inconspicuous and, to as great an extent as possible, does not speak at all.

The children sit informally, where they please. Some take notes. They ask questions whenever questions occur to them. Most guests take questions in their stride, treating the children as equals.

Wills and estates

"They were rather young in years," reported County Judge Bob Casey after addressing one group, "but they were pretty advanced in their questions."

"I thought they would ask me about television lawyers, but they wanted to know about wills and estates."

The members of the Explorers Clubs are given no quarter. They are expected to maintain their regular work and make up what they miss during club meetings.

Generally they tell their fellow pupils about the meetings and this serves to disseminate the experience among more young people and at the same time stimulate non-members to raise their standards of work and conduct so that they can qualify the next year. (There have been no drop-outs or replacements of members during the first two years of the Explorers Clubs.)

Field trips

Although most speakers come to the clubs, the fifth- and sixth-grade clubs each took field trips to nearby small industrial plants. They observed the processes of fabrication and packaging, and learned how the businesses are operated.

One after another of the guests has praised the interest and attention shown by the club members. "The community," says Principal McClendon, "is learning too. It sees outstanding children respond to the stimulation of people who can, and want to, interest them in their careers."

What do students think of their guests? Said one 11-year-old about the astronomer who met with the fourth grade explorers: "He skipped a few things about the planets that I would like to know." **End**

Boys' attention varies from thoughtful to preoccupied during trip through a nearby manufacturing plant visited by sixth graders who had chosen to explore business world.

The field trip grew out of the suggestion of a PTA member, head of Childers Mfg. Co., who volunteered to guide members of the sixth grade club through company's plant.



What goes into typical policy manuals?

The following table provides a useful list of what may be covered in written policies. It is compiled from a study of 60 policy manuals conducted by Dr. A. L. White, assistant specialist in local school government, U. S. Office of Education, in 1959. Complete results of this research are available in a booklet ("Characteristics of Local School Board Policy Manuals") which can be obtained from the U. S. Government Printing Office for 25¢.

Dr. White, in an interesting and readable introduction to his research, points out that district size is not a factor in the frequency with which the following subjects were covered in policy manuals, with one exception: certain districts provide different services than others. Thus, a district without a pupil transportation program obviously would not cover this subject in its policy manual. Here's what he found:

	No. of Manu- als	% of Manu- als
BYLAWS		
Selection of board members	42	70.0
Orientation of board members	1	1.7
Travel expenses and compensation	6	10.0
Resignations of board members	2	3.3
Dismissals of board members	2	3.3
Board functions and duties	45	75.0
Board officers	48	80.0
Board committees	43	71.7
Board meetings	59	98.3
School board associations	8	13.3
Development and use of policies	56	93.3
PERSONNEL		
Selection of personnel	57	95.0
Personnel qualifications	54	90.0
Contracts	41	68.3
Initial placement	44	73.3
Orientation	6	10.0
Duties and responsibilities	53	88.3
Length of working day	43	71.7
Absences during working day	24	40.0
Outside employment	9	15.0
Professional conduct	31	51.7
Personal conduct	12	20.0
Religious and political activity	20	33.3
Teaching load	13	21.7
Salaries	51	85.0
Tenure	26	43.3
Sick leave	45	75.0
Maternity leave	28	46.7
Personal leave	38	63.3
Military leave	21	35.0
Vacations	33	55.0
Retirement	41	68.3
Miscellaneous fringe benefits	28	46.7
Supervision of personnel	38	63.3
Evaluation of personnel	39	65.0

into a lot of detail or actions that can more properly be delegated to someone else. If we want to get the most from our board members, and if we want generally to up-grade the quality of school board members, then we have to give them something more to do than add up a lot of figures and see who is the low bidder. Remember, the most important reason for putting policy in writing is to eliminate the necessity for constantly re-deciding ques-

tions that are amenable to standardization.

Q. In an area like personnel policies, would you be very specific in your written policies?

WILLIS: Definitely. For example, in our district we outline our whole policy on personnel leaves, whether they are cumulative and how much leave a person can have each year. We tell them how many days a year they are going to be

working, we tell them about sick leave and maternity leave and professional standards and our methods for handling dismissals. I think teachers are entitled to know these things—to have them in writing. It's one way to help get and keep good teachers.

Q. Do you distribute a copy of your board policies to all teachers?

WILLIS: We print our policies in booklet form, so a general distribu-

In-service education	56	93.3
Graduate study leave	30	50.0
Exchange teaching	7	11.7
Promotions	10	16.7
Filling vacancies	8	13.3
Transfers	28	46.7
Demotions	7	11.7
Resignations	18	30.0
Dismissals	47	78.3

MANAGEMENT

School schedule	43	71.7
Records and reports	51	85.0
Instructional materials	45	75.0
School system publications	27	45.0
Teaching methods	8	13.3
Classroom management	12	20.0
Research and surveys	26	43.3
Money drives	31	51.7
Contests	15	25.0
Concessions and business enterprises	9	15.0

PUPILS

Admission	55	91.7
Assignment	33	55.0
Classification	34	56.7
Attendance	55	91.7
Pupil progress	36	60.0
Discipline	54	90.0
Pupil safety and protection	49	81.7
Graduation	21	35.0

EDUCATIONAL PROGRAM

Objectives of education	14	23.3
Scope of program	29	48.3
Grade organization of schools	9	15.0
Curriculum	53	88.3
Specialized instructional services	39	65.0
Student organizations and activities	40	66.7
Supervision and evaluation	42	70.0

CURRICULUM

Curriculum organization	31	51.7
Exceptional children	26	43.3
Required courses	10	16.7
Required instruction	13	21.7
References to specific subjects	14	23.3
References to special activities	21	35.0
Experiences out of classrooms	21	35.0
Curriculum revisions	16	26.7

AUXILIARY SERVICES

Health program	43	71.7
Lunch program	35	58.3
Transportation program	35	58.3

BUSINESS

Financial accounting	54	90.0
Maintenance of property	54	90.0
Supply and equipment management	52	86.7
Budgetary procedures	51	85.0
Securing funds	27	45.0
Construction of buildings	27	45.0
Insurance	18	30.0
Purchasing sites	15	25.0
Sale and lease of property	8	13.3

PUBLIC RELATIONS

Use of school property	55	91.7
Interpreting school activities	47	78.3
Selling and advertising on school property	30	50.0
Citizen complaints	28	46.7
Public hearings	7	11.7
Visits to schools	9	15.0
Gifts and donations	9	15.0

RELATIONSHIPS WITH:

Local governmental agencies	21	35.0
Citizen committees	20	33.3
Civic groups	13	21.7
Neighboring school districts	3	5.0

tion is possible. Every school teacher and every employee of the school system receives a copy. The PTA's have copies, and additional ones are available on request. We see that the newspapers have copies, too. We think this is intelligent public relations. These things get read. Recently we had someone in the audience at a board meeting tell us that we were considering doing something contrary to policy. I don't think we had a board member

who knew the policy as well as that individual. One more point: Written established policy is a handy thing to have when a particular group is giving you a little more pressure than you would like to bear. The board can always say, "Is your reason good enough now to justify changing a policy that has been in force and effective for 10 years?"

Q. How do you handle changes in

the written policy, if your booklet is printed?

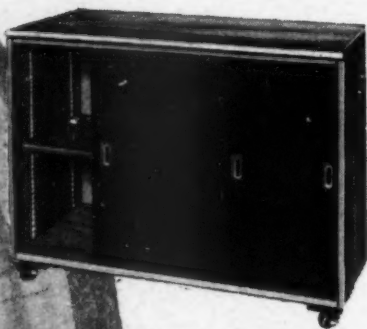
WILLIS: Ordinarily, we don't notify people who have copies of these changes. But we do send a mimeographed slip, covering changes, to all members of the school system staff.

SHANNON: Quite a few school systems solve the problem this way: Every policy booklet is numbered. A list of names and addresses is

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kept by the board with the number of the policy booklet next to it. Any time there is an amendment to policy, the secretary of the board sees that this amendment or change in policy goes to all the people who are listed by the numbers.

Q. Wouldn't a loose-leaf book be practical?

WILLIS: Very practical. There's no fixed rule. In my area we review and revise our policy booklets about every two or three years and we print them.

SHANNON: In the study we are making at the National School Boards Association, we have received more than 400 copies of policies from as many school boards throughout the nation. I found that about 75% to 80% of them are loose-leaf. The very basic things—like the school philosophy—are often printed. The rules and regulations, which change, are mimeographed.

Q One final question. We've talked about what should go into written school board policies. What are the things that should not be put in writing?

WILLIS: Unnecessary detail. The more you try to anticipate every situation, the more you tend to negate the real purpose of written policy. Also, you are not giving enough discretion to the administration.

SHANNON: I'd like to add one thing to that. I don't think written policy should attempt to delineate curriculum. It was an age-old practice in this country for the parent to decide what the youngster would take. Today, we hope that it's done in cooperation with the child, the teacher and the guidance counselor. We must depend on these counselors and professionals to convince able youngsters to take challenging courses. But I don't personally believe in a school board telling the youngster, as a matter of rigid written policy, that he must take four years of math, four years of a language, or four years of science. The board may set the climate—establish the philosophy of the curriculum—but it should permit the staff to interpret this philosophy in terms of individual children and individual situations. **End**

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Merit pay

continued from page 38

A six-week summer workshop, attended by competent people, say superintendents, can accomplish more than could the same people meeting weekly over the course of two years, after school.

In addition, there is a prestige factor: to take a nonprofessional job somehow detracts from the teacher's standing as a professional—to be asked to serve in an additional professional activity adds to that stature. As an added bonus to education, the teacher who has worked on a project is certainly more apt to continue an interest in it during the school year, and his co-workers may be more willing to try a new home-grown plan than one suggested by a far-away consultant or even by the local administration.



Year-round school

This type of planning is in line with the year-round school idea, which is being considered very carefully in many areas. (See "12-month contracts for teachers," *SM*, Nov.-Dec. '57). The year-round school assumes that teachers are hired for 12 months even though the children may attend school only during nine. In such plans there is a choice of summer activities for the teachers. Some may elect to go to college summer schools for further training. Others may choose to travel or take personal leave. Those who remain at school take part in professional projects or teach.

Such a system presents many obvious administrative problems in scheduling and assigning equitable pay for various activities, but it is an interesting one to consider.

Many educators feel that, while past experiments along these lines left much to be desired, it may be because they were put into effect too suddenly. They hope that a new approach to the plan may result in a wide acceptance. This, they feel, would be a way to reward teachers not only with money, but with the opportunity for professional growth and, at the same time to give more opportunity to the pupils and to make better use of school facilities.

These plans all have support to

one degree or another among teachers. They all reward good teaching but they differ in one important way from what has become known as merit pay:

Merit pay is basically a system for rewarding outstanding teachers. It offers no means—other than the possibility of incentive—to improve weak or average teachers.

The other plans presented here are designed to reward, and help, all teachers. They reward outstanding teachers by giving them extra responsibilities and assignments. They help average and poor teach-

ers by giving them the time and opportunity to improve their work, by giving them a chance to discuss ideas with better teachers and by presenting them with improved course outlines developed by superior teachers.

It seems apparent that merit pay has become an emotional term that conjurs up thoughts of monsters and beasts in some minds, of sweetness and light in others.

But the idea of paying better teachers for their work meets favor in all quarters. In other words, call it anything but merit pay. **End**

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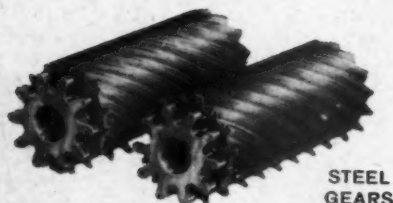
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78

Fine arts

continued from page 42

classes today. The other departments have had similar experiences."

Although the related arts program seemed on the surface to offer a new dimension in the teaching—and emphasizing—of the arts, SCHOOL MANAGEMENT editors were frankly skeptical of its practicality in most high schools. Mr. Wyckoff was questioned at length by one in an effort to probe more deeply into some of the possible problem areas. The following are excerpts from that tape-recorded session.

Q. Mr. Wyckoff, in this kind of a scattered course, where students spend only two days at a time on any one subject, how can you succeed in actually teaching them to do anything in that area? For example, how can you teach a student to paint?

WYCKOFF: First of all, we are not attempting to make artists, musicians, home economists or industrial designers out of these students. This is important to understand. All that we are interested in in this course is giving these students an opportunity to have creative experiences. This is where everyone gets in trouble in these four areas. They try to make artists out of students in two lessons a week and you can't do it. Making artists or home economists or anything else out of a student is not the job of an introductory course. That is something for them to undertake in elective courses later on in their high school experience.

Q. In other words, you don't teach drawing or painting in your related arts course?

WYCKOFF: Oh yes, we teach them. We also teach students how to cook and how to work with wood. But these come at the proper time. For example, you must know how a saw works before you can build a box. You must know how different woods can be glued. We don't start out the year by giving students a brush and telling them to paint. We do not believe in the approach that many people in art education have held: "Here's a brush, go create." This is a fallacy. It is the most frustrating thing that can happen to a child. But they will have the opportunity to paint or draw. By that time we know what they can do and how we can help them do it.

Q. What do teachers think of your program? Doesn't it limit their independence?

WYCKOFF: They are much more inhibited in a traditional kind of program than they are now. Under the related arts program, they are free to change their courses, their schedules at any time they feel it necessary. We expect all of our teachers to be creative people and we expect them to chart new courses. We feel that this kind of approach gives them greater independence and also greater resources because they are working with other creative people in other art fields who can help them. For example, several times this year I have asked one of the music teachers to come in and explain a point in one of my art classes. He had an insight into something because he was a musician that I lacked. In this way I was able to broaden my own education and to also add a new dimension to my teaching.

Q. Mr. Wyckoff, you have quite a large art department for a high school. There are 1,030 students in the school and you have mentioned that there are three teachers in art, two in music, two in homemaking and two in industrial arts. Could a program such as yours be carried out in a smaller school where there is not such a large staff?

WYCKOFF: I can see no reason why not. In most of your small schools, the art, music, industrial arts and home economics enrollments are extremely low. There is probably just enough to justify one person in each area and in most cases these people are programmed in the study hall, lunch duty and what not to fill out a teaching program. But one of the reasons that they don't have more students is because they are not taking any initiative in developing a new meaningful program. Since arts is usually not required at the ninth grade level, many teachers go right up to the beginning of the year wondering whether they will have any students or not. One thing that I think would happen in any high school with this program is that suddenly there would be new interest in each of the related arts.

Q. It was mentioned earlier that the related arts people are the only ones to see the whole freshman class to-

gether. This would mean that you would have girls and boys in all of your classes. Do you give the boys courses in homemaking and the girls courses in industrial arts?

WYCKOFF: Certainly. However, here we do make one compromise. For two quarters of the year—usually the first and third—we combine the boys and girls into homemaking and industrial arts classes. But for the other two quarters, the boys take industrial arts exclusively and the girls take homemaking. This is because the boys will not be as interested in all the homemaking experiences as the girls and we would not expect them to be. By the same token, neither will the girls be as interested in developing work utilizing machinery as will the boys.

Q. Mr. Wyckoff, if you were coming into a new high school today for the purpose of setting up a related arts program, would you set it up just as you have in Pascack Valley?

WYCKOFF: If I were going to set up a specific course, I would like to take the same four areas with the addition of speech and drama and English. At the same time, I would want to have the math, science and social studies staffs aware of our course and prepared to give us help with it. We would like to be able to use these people as resource teachers.

Obviously, it would be completely unwieldy to set up the related arts course with all of these subjects in it and still try to keep it as a small segment of the curriculum—because that would be the whole curriculum!

Q. In other words, you would want to be able at a particular time to call in a history specialist to talk about development of certain things; you'd want to be able to bring in a mathematician to talk about mathematical concepts that are involved?

WYCKOFF: What would be ideal, of course, if the school had the money would be to have these people always on tap during the related arts period. In other words, I know that if in the middle of the class something came up in mathematics which I could not handle, I could immediately contact a mathematician. Now this is better than having a book in the library.

Let me make one observation at this point. The related arts program is not an expensive one. As a matter of fact, it is less expensive than tra-

ditional art, music, industrial arts and homemaking programs. The only way that it becomes expensive is in the fact that it creates so much more interest among students that you must offer them more advanced courses in each subject area. Another possible, but worthwhile, expense would be relieving a teacher in each area of the curriculum during the related arts periods to have him available as a resource person. It certainly would mean that the related arts course would really fulfill its role—that of introducing stu-

dents to all of the arts and their place in the world.

Q. So introduction—not skills—is your basic objective in the program?

I want to reemphasize the fact that we are not attempting to make artists, musicians, industrial artists and economists out of this program. The basic concept is to give creative experience to the students in these areas. If we don't teach some specific skill all is not lost. In fact, much more is lost if you teach a skill and fail to interest students in the overall subject. **End**

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continued from page 8

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on at approximately one foot-candle and off at 10 foot-candles. Current models are suitable for tungsten loads up to 300 watts on 120 volt AC circuits. Unaffected by either weather or temperature, the unit features a built-in time delay to prevent random activation by auto headlights or other temporary light flashes.

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Forced air furnace

A new line of forced air furnaces, featuring larger, direct drive blowers for more air volume at lower blower speeds and an optional blower for higher capacity air delivery requirements, has been announced by the Payne Co. This Pacemaker series provides a furnace only 51 inches tall, making it easily adaptable to basement installations, with optional return duct cabinet.

For more information, circle number 900 on the Reader Service Card.

'Flagged' nylon floor brush

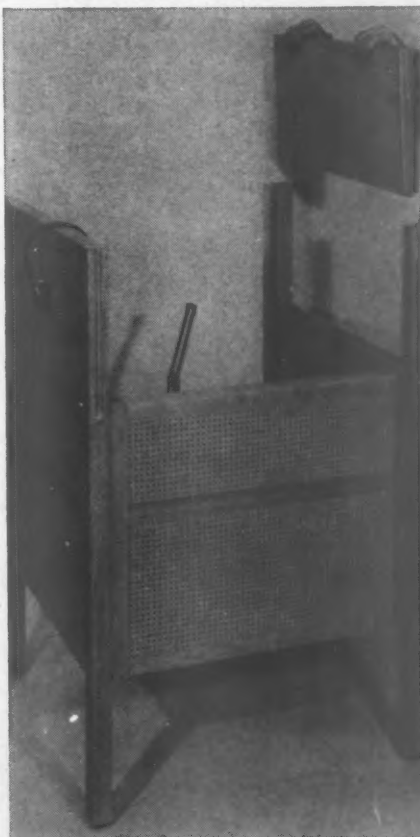
Ranging in size from 12 inches to 48 inches, a new 100% "flagged" nylon floor brush, with three-inch trim, has been introduced by Rossiter &

Schmitt Co. The "flagged" ends are said to sweep more thoroughly than hair or fiber because the glossy nylon stems do not clog with dirt, spring back into shape and last three to five times longer. Under normal use, the nylon stems are guaranteed not to shed. They are readily washed and can be sterilized without ill effect.

For more information, circle number 844 on the Reader Service Card.

Flexible language lab booth

Unlimited expandability and layout possibilities are provided by Universal Language Laboratories Corp.'s Lang-Lab unit which can be set up, changed, enlarged or rearranged to fit any space in just minutes. The unit features hardwood frames containing a specially constructed baffle within a core of fiber-glass batts with a noise reduction factor of .85. Spring locks keep panels and posts tightly locked. Also available is the Lang-Lab desk, a unit that snaps in or out for easy



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maintenance of the equipment it contains. The top and front of the desk unit are of Formica in a choice of pattern and color; the booths themselves come in gray, green or tan.

For more information, circle number 848 on the Reader Service Card.



Adaptor for vacuum cleaner

A drum adaptor for use with the power unit of any General Four-Star Series vacuum cleaner has been introduced by General Floorcraft, Inc. The adaptor and power unit can be moved from drum to drum, thus greatly increasing tank capacity. Both fit other drums or containers as well, provided diameters are no less than 17 inches and capacities are no more than 55 gallons. Power units as well as drum dollies can be purchased separately for use on other 30-55-gallon drums.

For more information, circle number 843 on the Reader Service Card.



Driver training films

A series of driver education films for classroom instruction is now available from NET Film Service, Indiana University. Consisting of 29 films, the series is based on the driver training program conducted for two years for the Cincinnati public schools through the facilities of WCET television, Cincinnati. Harry Hannum, driver education expert for the Cincinnati schools, is host. He uses film inserts, magnet board models, dummy automobile controls and rear screen projection to illustrate driving techniques. The series is divided into three major problem areas: the car, the roadway and the driver. All aspects of the driver in various driving situations are discussed under such program titles as "Driving in City Traffic," and "Driving on the Expressway." Each film runs for 30 minutes.

For more information, circle number 861 on the Reader Service Card.



Heavy duty floor machines

An improved line of floor maintenance machines designed to minimize operator fatigue is now offered by Holt Mfg. Co. The Commodore has a fully adjustable handle which can be locked at any desired height by a simple touch of the foot without stooping or squatting. The low profile chassis works under furniture and recessed counters, saving operator's back and



knees. Other features: safety hand-grip switch, patented static eliminator wire in brush and patented self-leveling brush bracket to prevent "hop." Two models, in 14-, 16-, 18- and 20-inch brush spreads, are available. Both may be converted from polishing to waxing, scrubbing, rug scrubbing (see cut), shampooing, buffing, sanding, etc.

For more information, circle number 856 on the Reader Service Card.



Low-priced hardwood bookcase

Solid birch bookcases, finished in high grade satin lacquer, are featured in the new "1200" line just introduced by Hale Industries, Inc. The bookcases are available in two heights, 30 and 42 inches, and are designed, according to the manufacturer, to satisfy the demand for hardwood units with low price tags.

For more information, circle number 862 on the Reader Service Card.



Low cost offset masters

A new method of making inexpensive paper masters for offset reproduction of virtually any kind of printed, typed, written or drawn original, has been introduced by Eastman Kodak Co. Designed for short press runs under roomlight office conditions, the Ektalith Method makes possible the production of enlarged, reduced or same-size copies of hundreds of different types of documents—microfilm records, file cards, checks, charts and correspondence. Masters, produced photographically in two minutes, can provide up to 2,000 copies with the last as legible as the first. The paper masters are easy to correct and change with a moistened eraser or ink eradicator. Ektalith equipment includes a

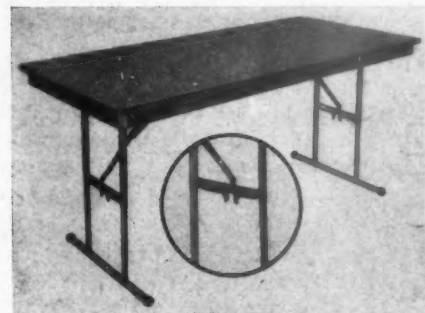
loader-processor, two processors for use with darkroom cameras and a copy unit which can be used with any of the three.

For more information, circle number 846 on the Reader Service Card.



Adjustable folding table

An adjustable height folding table that goes beyond the normal height limitations of 30 inches is now available from Foldcraft Co. This newest addition to the company's line may be adjusted for 30 to 40 inches in height at one-inch intervals. Of sturdy, 18-gauge tubular steel which is welded and riveted at all points of stress, the table has a spring-operated finger-tip control for raising and lowering. Its special, fool-proof locking toggles are an integral part of the folding leg mechanism and insure that the table will not collapse. A choice of tops is available: unfinished, 3/4-inch fir plywood; one inch Weytex hardboard with a rugged honeycomb core to eliminate warping and add strength and handling ease; and Marlite, a tempered



hardboard of the same construction as the Weytex top, with a durable Marlite plastic surface in a natural birch woodgrain pattern.

For more information, circle number 898 on the Reader Service Card.



High light output lamp

A distinctive, modern fixture that assures superior high-level lighting in any application has been developed by Smithcraft Lighting. The two-lamp Director produces 30,000 lumens of illumination—one-third more than a conventional four-lamp unit and equal to a standard six-lamp unit. Good diffusion characteristics and a pleasing light pattern are also featured. Rigid steel louvers provide shielding of 25 degrees crosswise and 35 degrees lengthwise. Maintenance is swift and easy: the rigid louver may be released from either end for re-lamping and may be "shelf-suspended" at a convenient level. Safe, simple snap-locks hold the

louver at the corners of the unit. All metal parts are finished in bonderized, baked white enamel.

For more information, circle number 902 on the Reader Service Card.

Kit for plastics experiments

A plastics experiments kit for science and chemistry classes from elementary through high school is available from D. J. Peterson Co. Materials, apparatus and instruction text for five practical experiments are contained in the Poly-Ep Experimental Kit. The polyamide and epoxy resins used in



the experiments are completely safe and non-toxic. All the materials needed to make thermosetting plastic coating, plastic concrete, plastic adhesive, castings and plastic solder are in the kit. Clear, concise instructions accompany the materials and a discussion of the varieties, properties and uses of better known plastics is also included in the illustrated, eight-page manual.

For more information, circle number 857 on the Reader Service Card.

Automatic door mat

A unique device that automatically wipes shoes clean at building entries, the Progressive Engineering Co.'s Miracle Mat consists of a heavy aluminum grille, rubber-mounted within a welded steel frame installed in the floor. Brushes run the width of the grille just below the slats. Footstep pressure depresses the grille, actuating switches and a motor that drives the brushes. The brushes sweep back and forth through the grille openings and keep on scrubbing until the pedestrian steps off the mat. The unit—including grille, electric motor and catch pan for dirt, simply lowers into an opening made in any kind of floor—wood, concrete, stone or tile. Its installation can sharply cut interior sweeping, mopping, floor polishing, painting, decorating and dusting operations.

For more information, circle number 850 on the Reader Service Card.

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Professional boiler men use this same Tornado vacuum cleaner. Take advantage of this versatility, improve heating and cut fuel costs by cleaning your own boiler tubes regularly.



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FREE cleaning survey by a Tornado cleaning engineer at no obligations, just write!

For more information, write for Tornado 400 bulletin #894.

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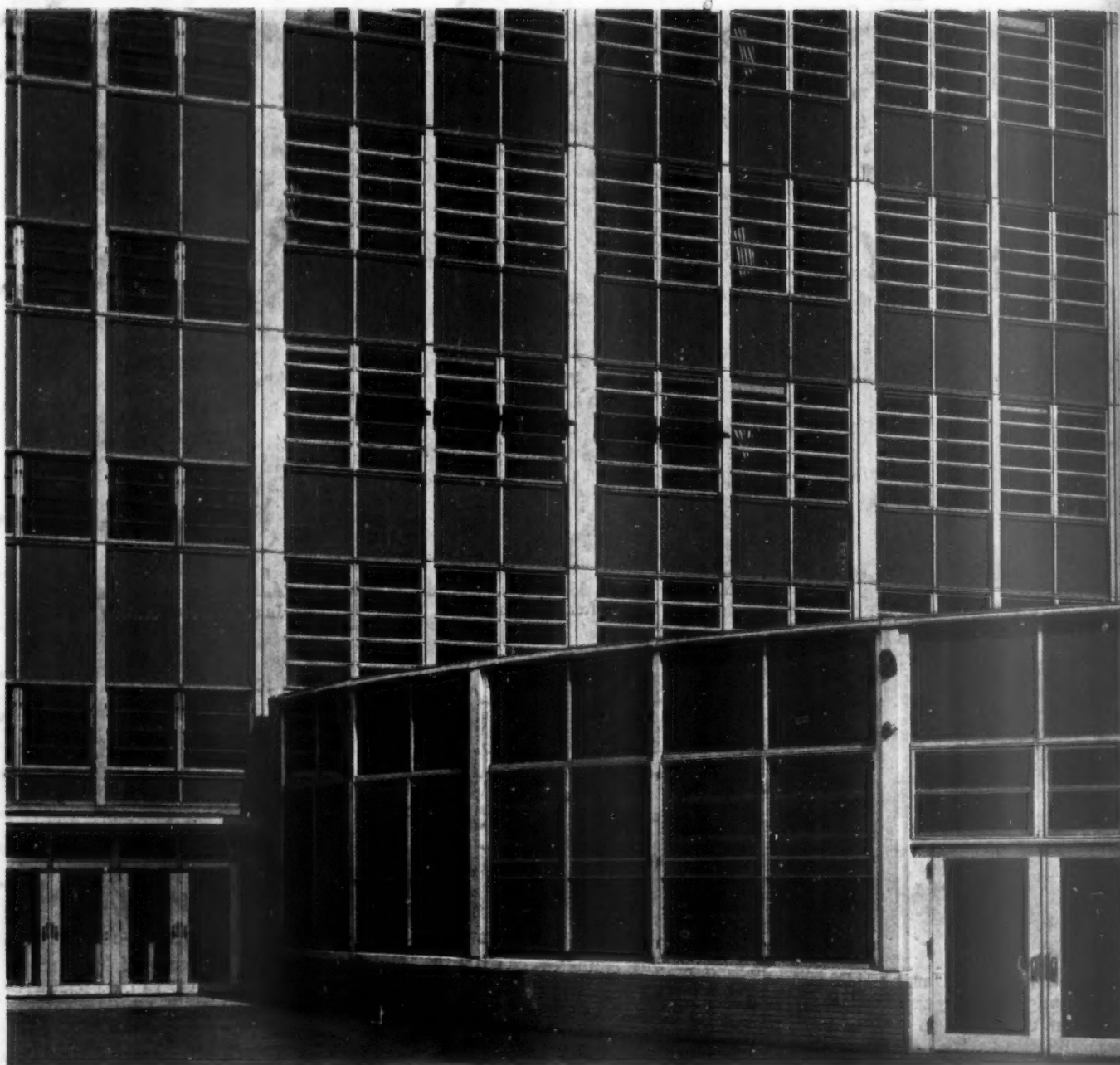
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